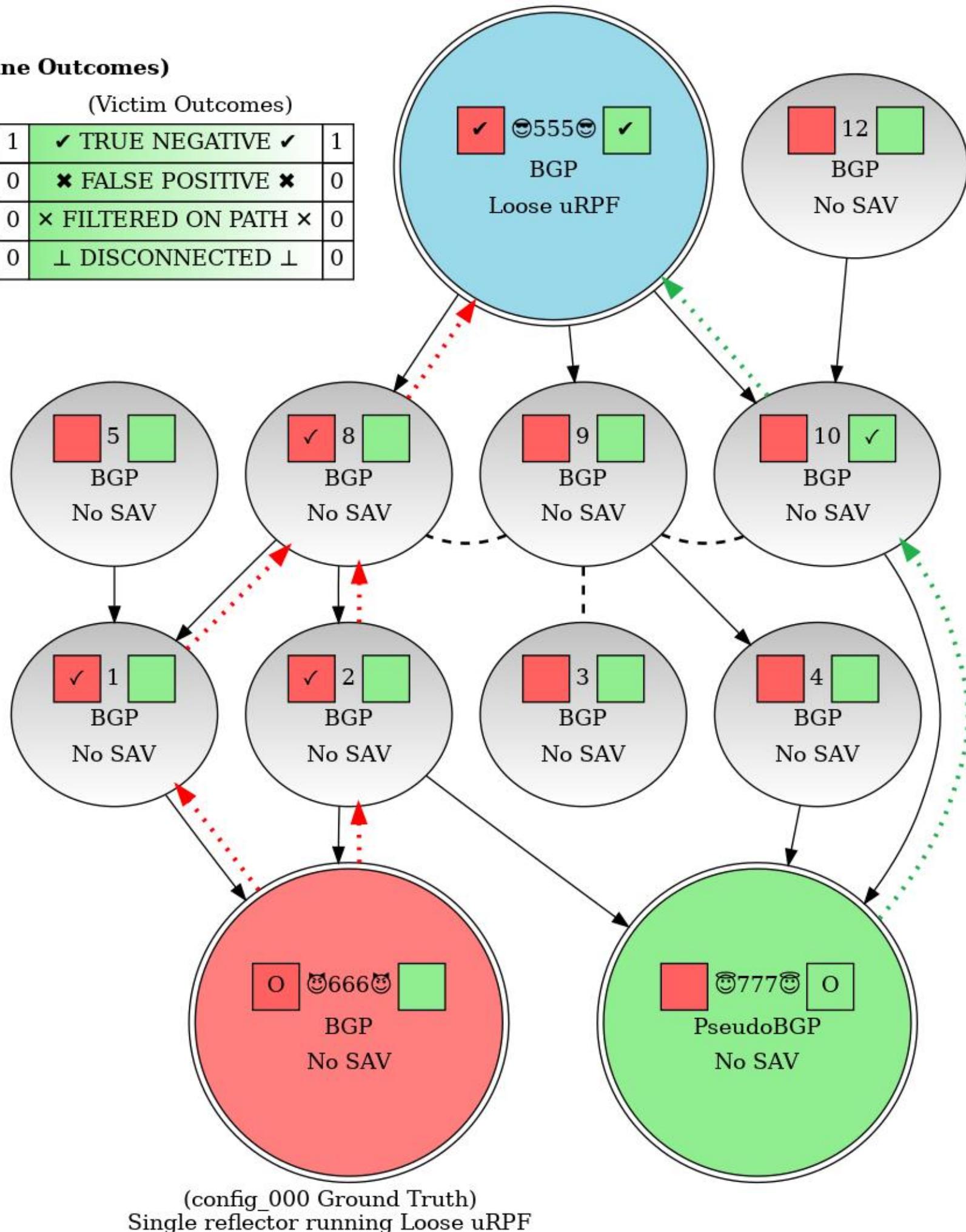


## (Data Plane Outcomes)

(Attacker Outcomes)

(Victim Outcomes)

✓ FALSE NEGATIVE ✓	1	✓ TRUE NEGATIVE ✓	1
✗ TRUE POSITIVE ✗	0	✗ FALSE POSITIVE ✗	0
✗ FILTERED ON PATH ✗	0	✗ FILTERED ON PATH ✗	0
⊥ DISCONNECTED ⊥	0	⊥ DISCONNECTED ⊥	0

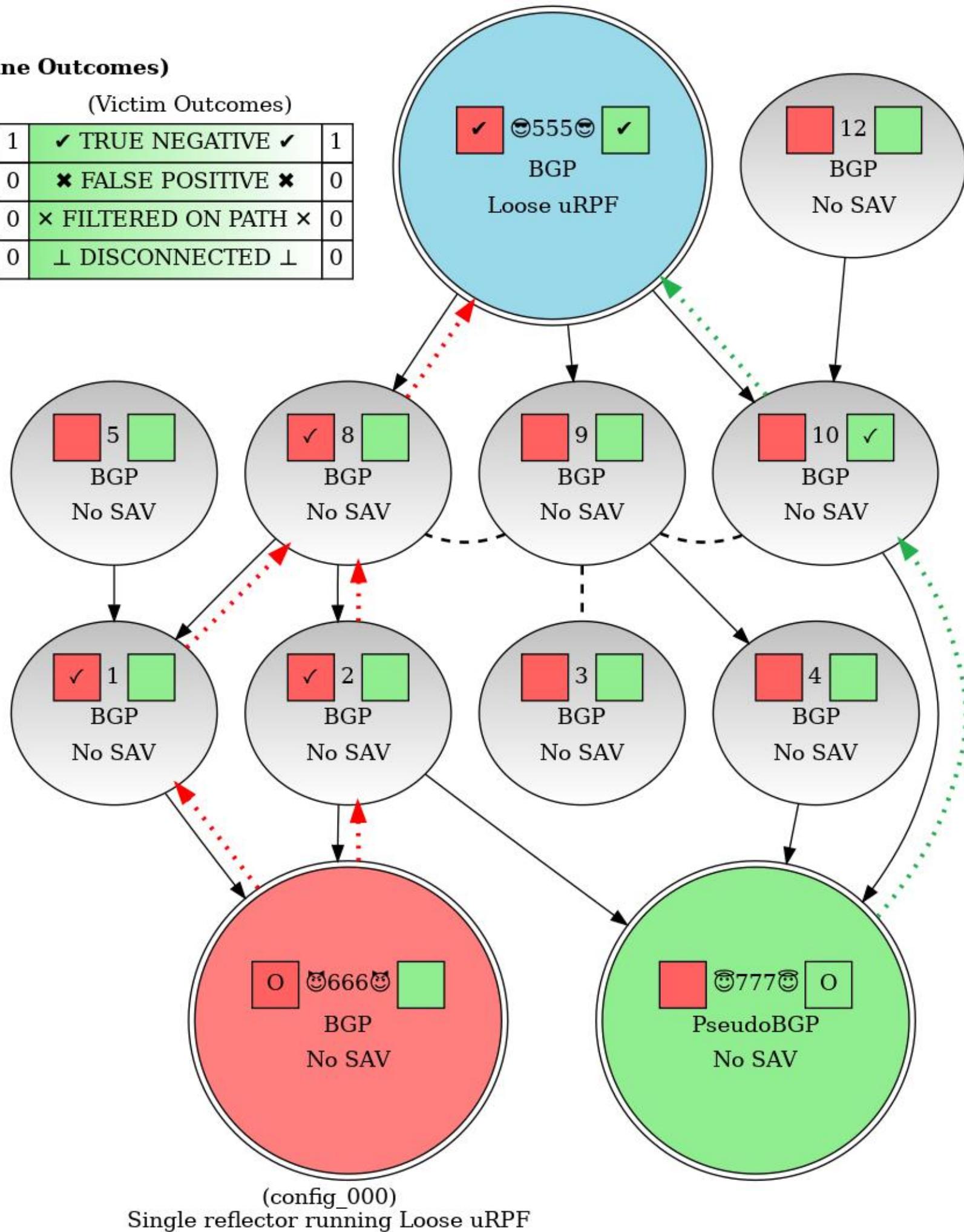


## (Data Plane Outcomes)

(Attacker Outcomes)

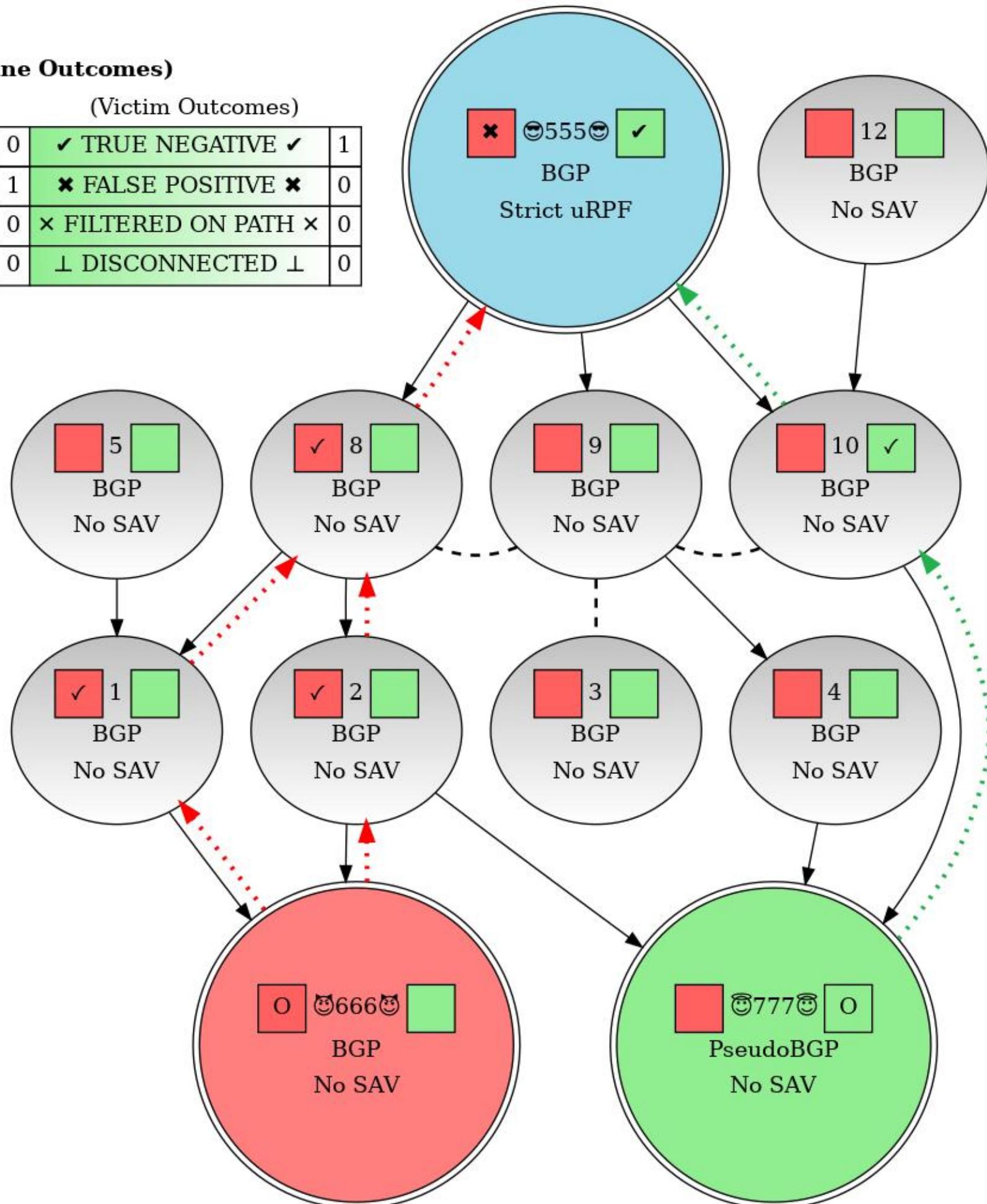
(Victim Outcomes)

✓ FALSE NEGATIVE ✓	1	✓ TRUE NEGATIVE ✓	1
✗ TRUE POSITIVE ✗	0	✗ FALSE POSITIVE ✗	0
✗ FILTERED ON PATH ✗	0	✗ FILTERED ON PATH ✗	0
⊥ DISCONNECTED ⊥	0	⊥ DISCONNECTED ⊥	0



## (Data Plane Outcomes)

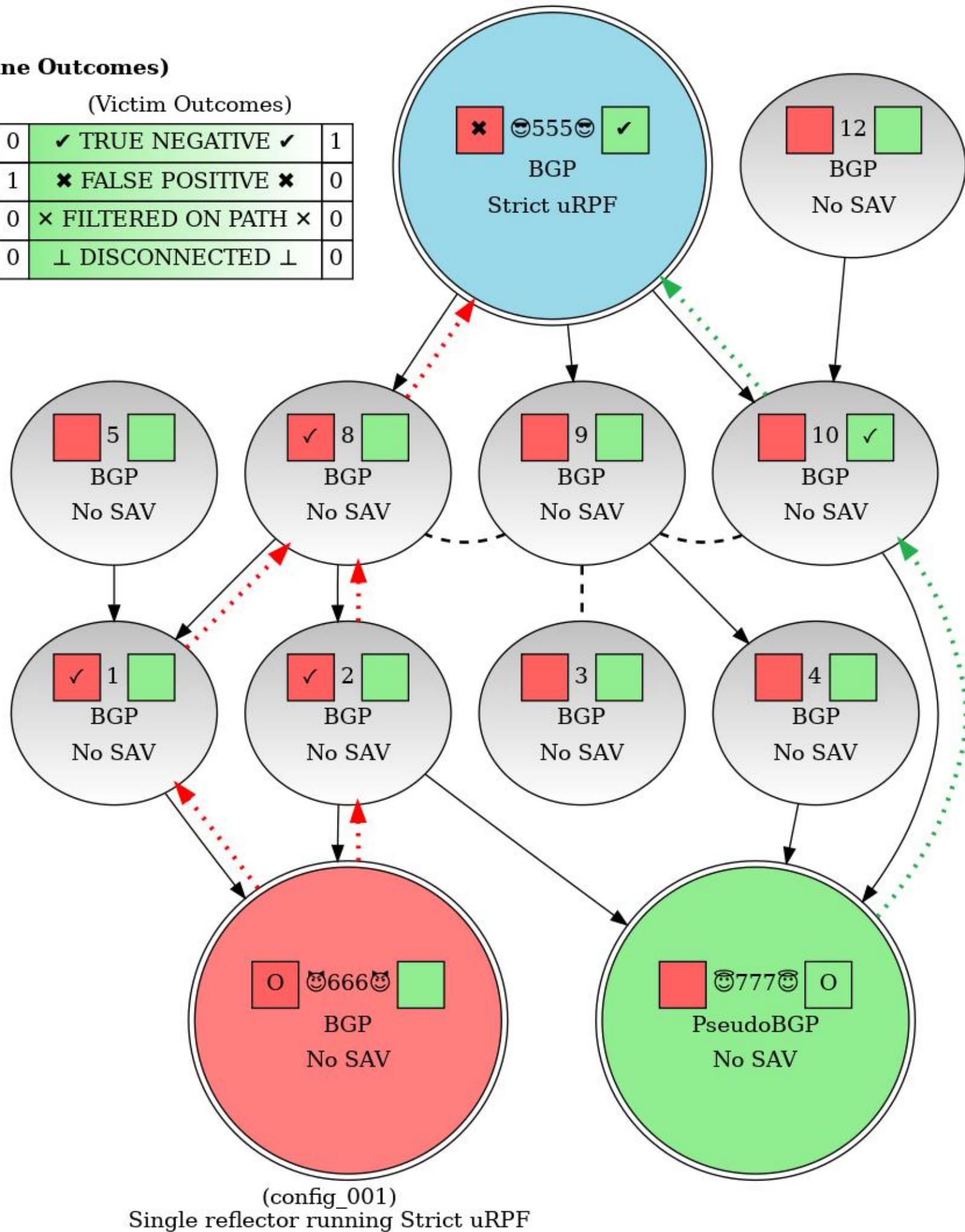
(Attacker Outcomes)		(Victim Outcomes)	
✓ FALSE NEGATIVE ✓	0	✓ TRUE NEGATIVE ✓	1
✗ TRUE POSITIVE ✗	1	✗ FALSE POSITIVE ✗	0
✗ FILTERED ON PATH ✗	0	✗ FILTERED ON PATH ✗	0
⊥ DISCONNECTED ⊥	0	⊥ DISCONNECTED ⊥	0



(config\_001 Ground Truth)  
Single reflector running Strict uRPF

## (Data Plane Outcomes)

(Attacker Outcomes)		(Victim Outcomes)	
✓ FALSE NEGATIVE ✓	0	✓ TRUE NEGATIVE ✓	1
✗ TRUE POSITIVE ✗	1	✗ FALSE POSITIVE ✗	0
✗ FILTERED ON PATH ✗	0	✗ FILTERED ON PATH ✗	0
⊥ DISCONNECTED ⊥	0	⊥ DISCONNECTED ⊥	0

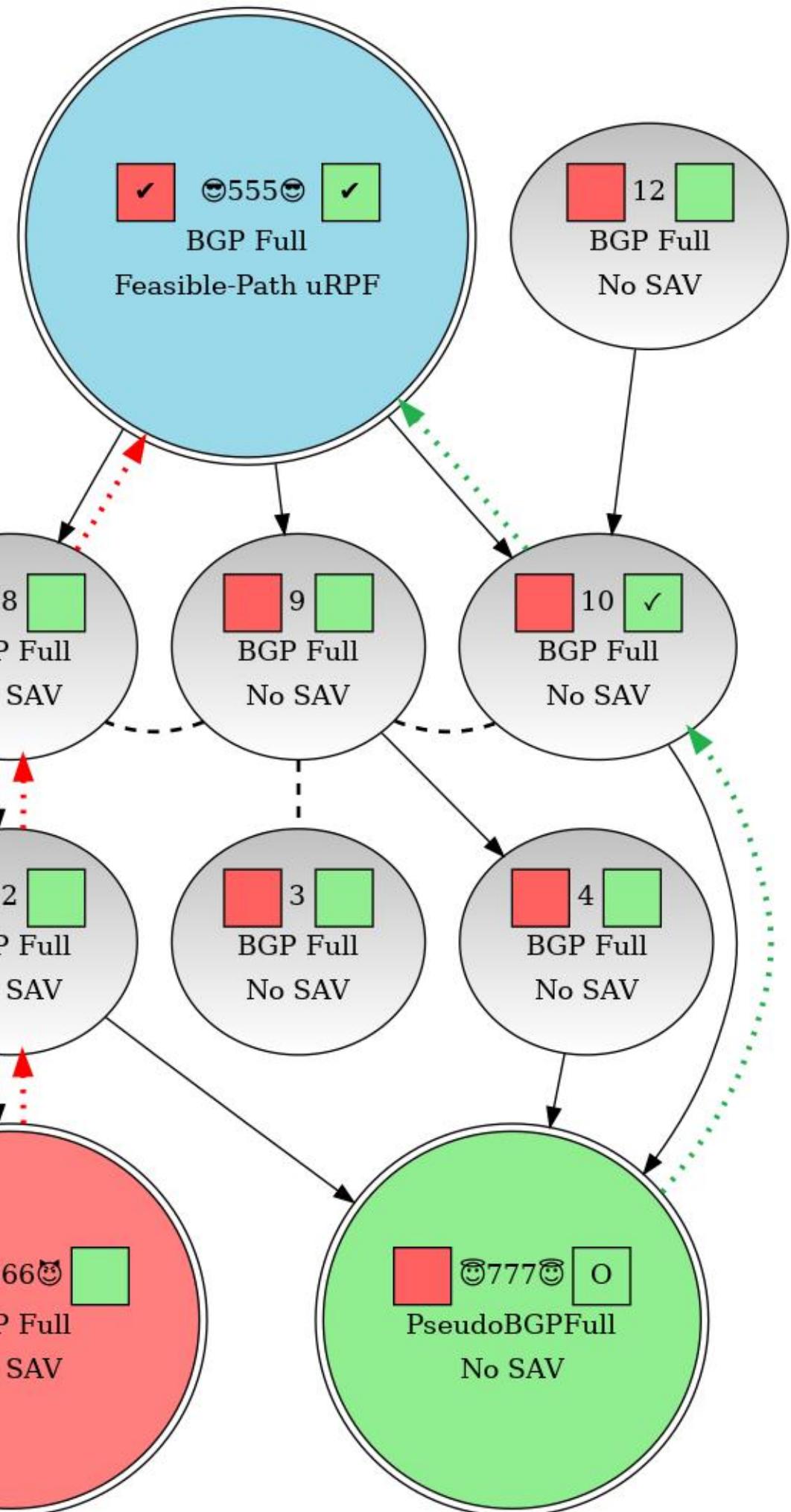


### (Data Plane Outcomes)

(Attacker Outcomes)

	1		1
✓ FALSE NEGATIVE ✓	1	✓ TRUE NEGATIVE ✓	1
✗ TRUE POSITIVE ✗	0	✗ FALSE POSITIVE ✗	0
✗ FILTERED ON PATH ✗	0	✗ FILTERED ON PATH ✗	0
⊥ DISCONNECTED ⊥	0	⊥ DISCONNECTED ⊥	0

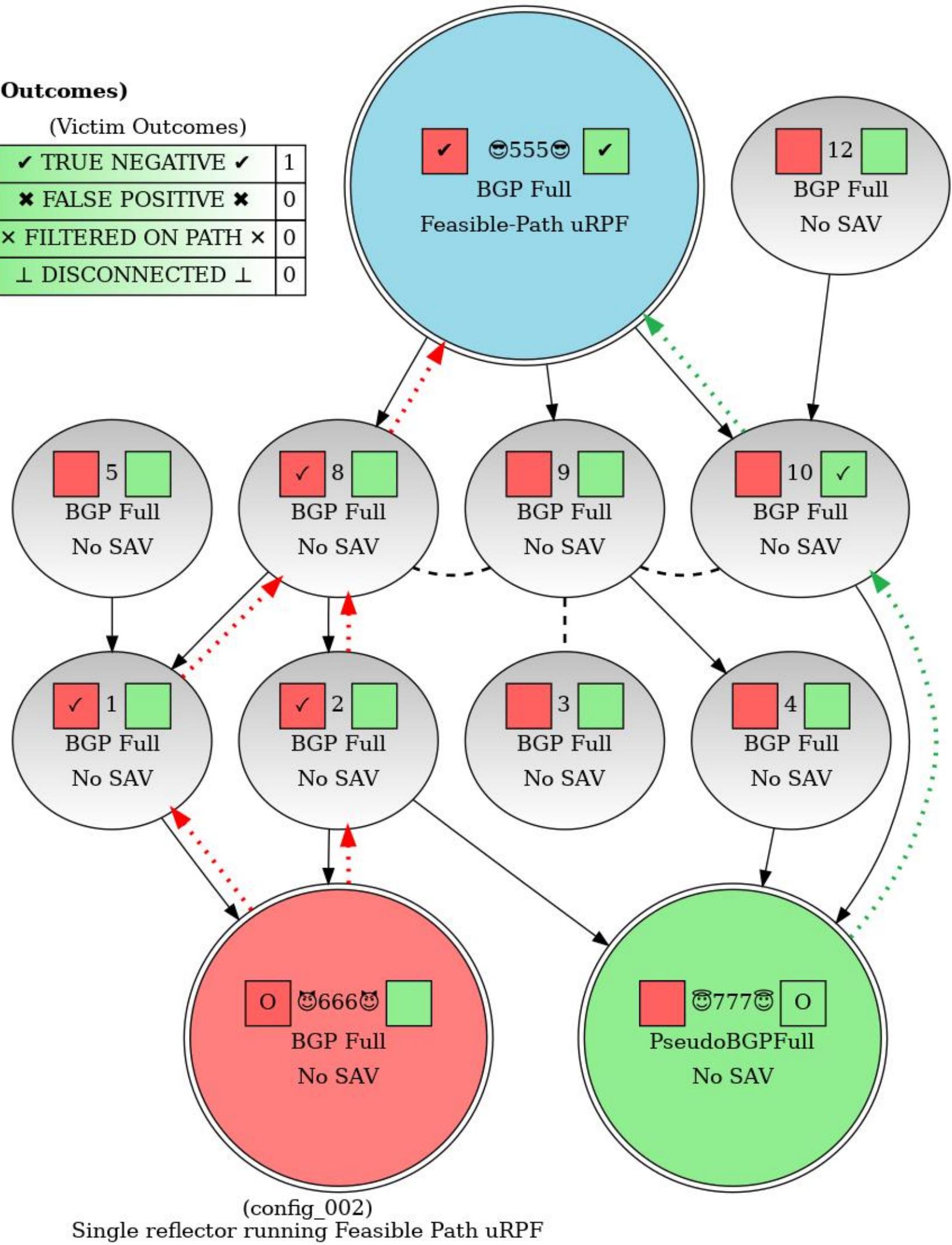
(Victim Outcomes)



(config\_002 Ground Truth)  
Single reflector running Feasible Path uRPF

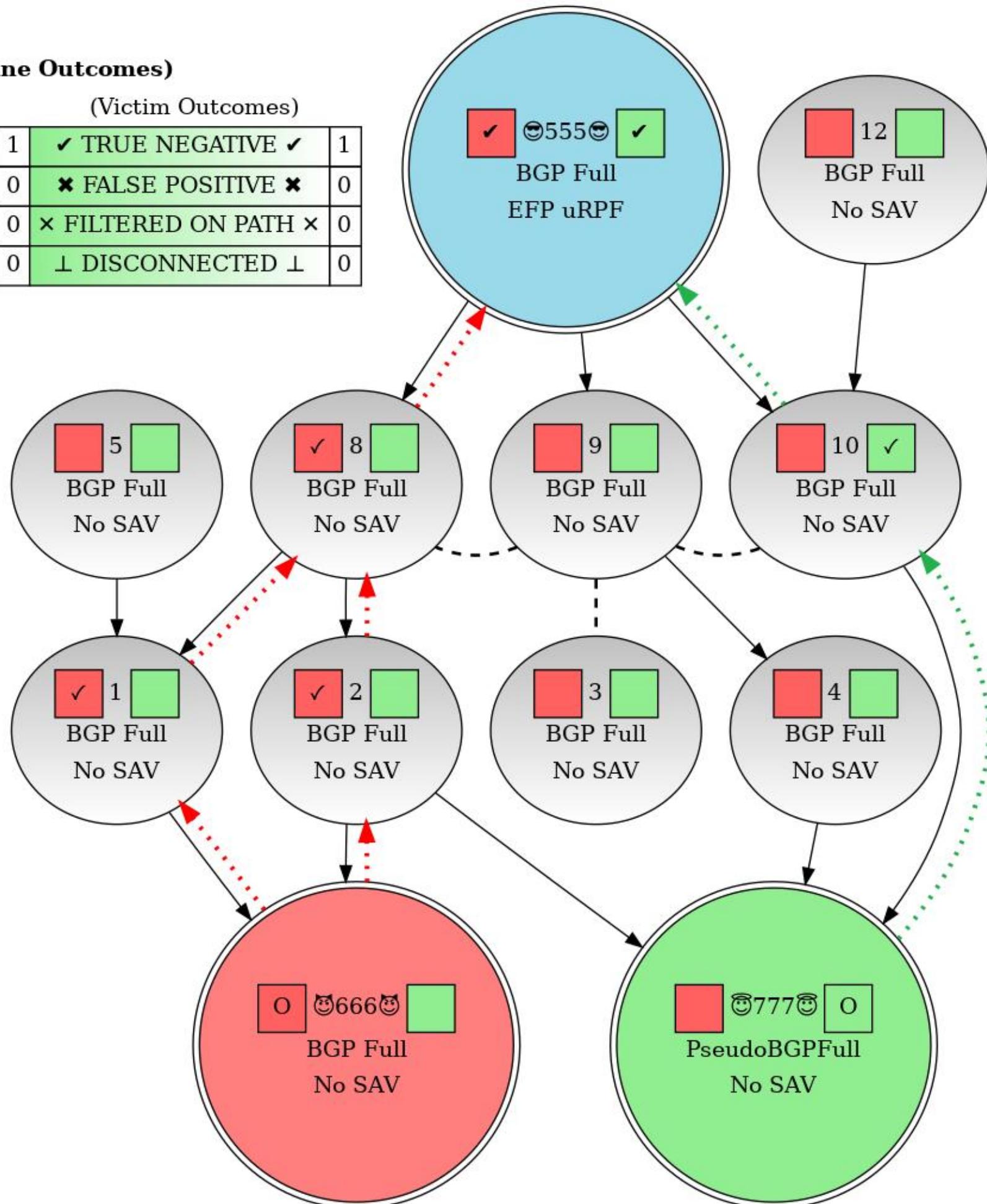
## (Data Plane Outcomes)

(Attacker Outcomes)		(Victim Outcomes)	
✓ FALSE NEGATIVE ✓	1	✓ TRUE NEGATIVE ✓	1
✗ TRUE POSITIVE ✗	0	✗ FALSE POSITIVE ✗	0
✗ FILTERED ON PATH ✗	0	✗ FILTERED ON PATH ✗	0
⊥ DISCONNECTED ⊥	0	⊥ DISCONNECTED ⊥	0



## (Data Plane Outcomes)

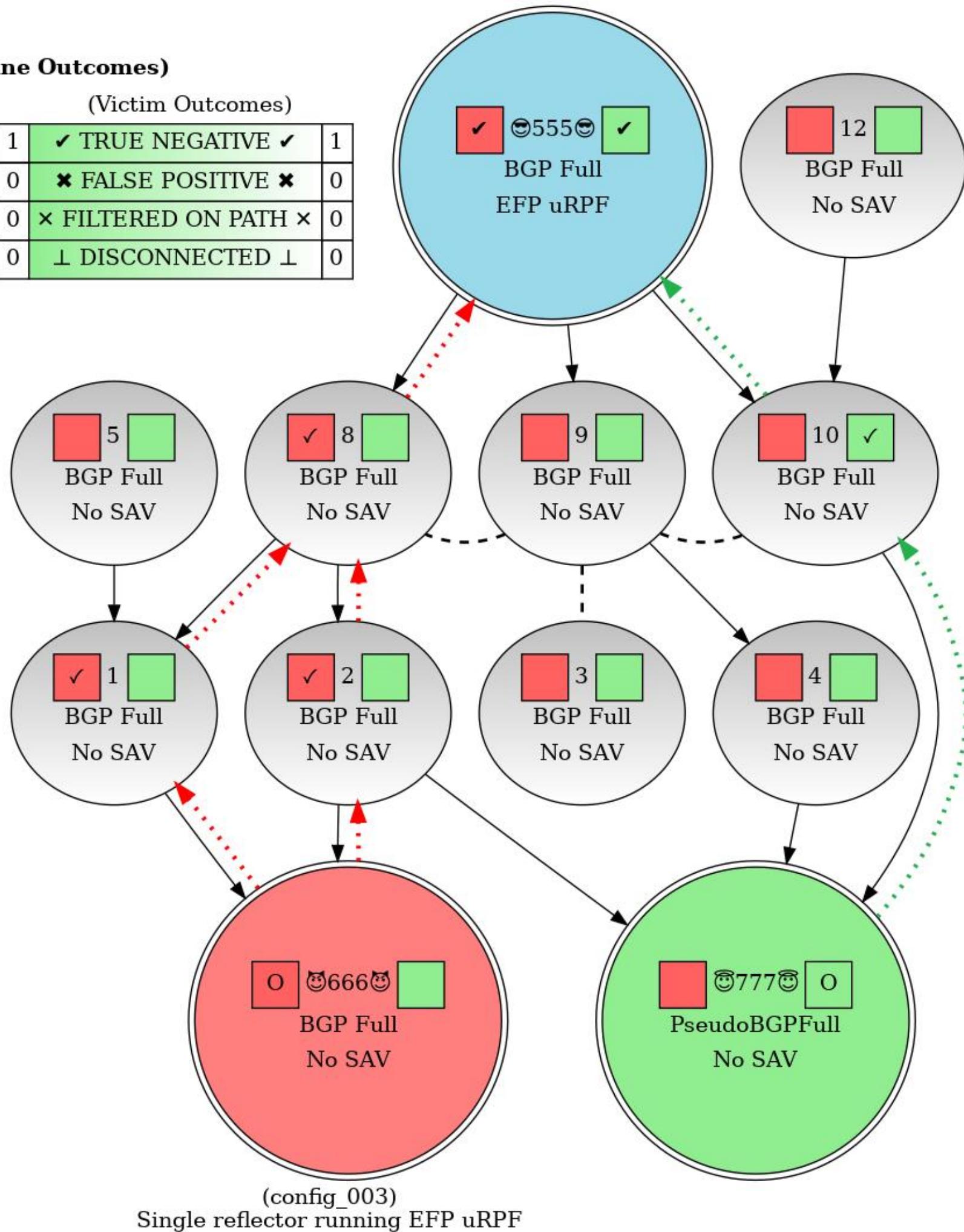
(Attacker Outcomes)		(Victim Outcomes)	
✓ FALSE NEGATIVE ✓	1	✓ TRUE NEGATIVE ✓	1
✗ TRUE POSITIVE ✗	0	✗ FALSE POSITIVE ✗	0
✗ FILTERED ON PATH ✗	0	✗ FILTERED ON PATH ✗	0
⊥ DISCONNECTED ⊥	0	⊥ DISCONNECTED ⊥	0



(config\_003 Ground Truth)  
Single reflector running EFP uRPF

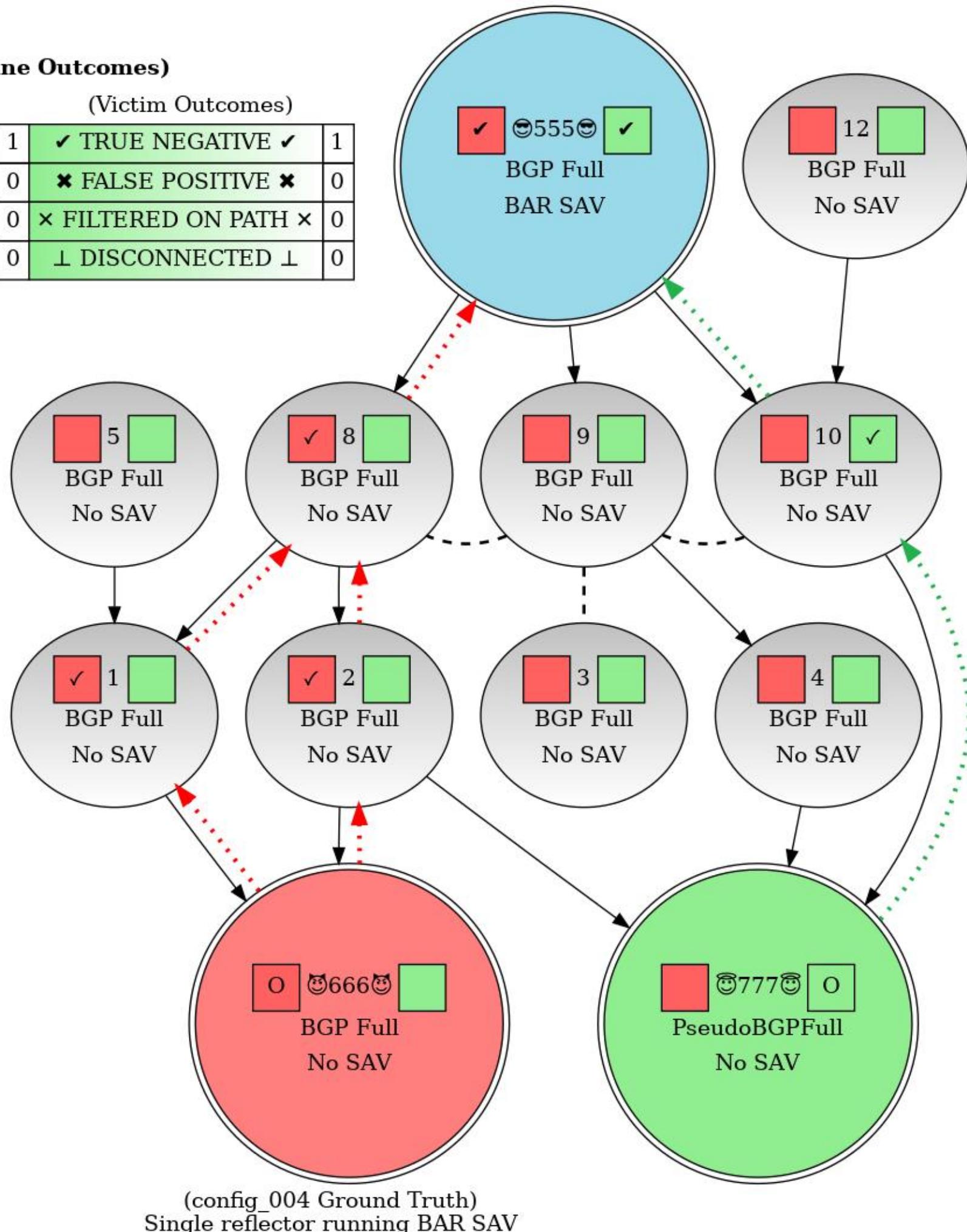
## (Data Plane Outcomes)

(Attacker Outcomes)		(Victim Outcomes)	
✓ FALSE NEGATIVE ✓	1	✓ TRUE NEGATIVE ✓	1
✗ TRUE POSITIVE ✗	0	✗ FALSE POSITIVE ✗	0
✗ FILTERED ON PATH ✗	0	✗ FILTERED ON PATH ✗	0
⊥ DISCONNECTED ⊥	0	⊥ DISCONNECTED ⊥	0



## (Data Plane Outcomes)

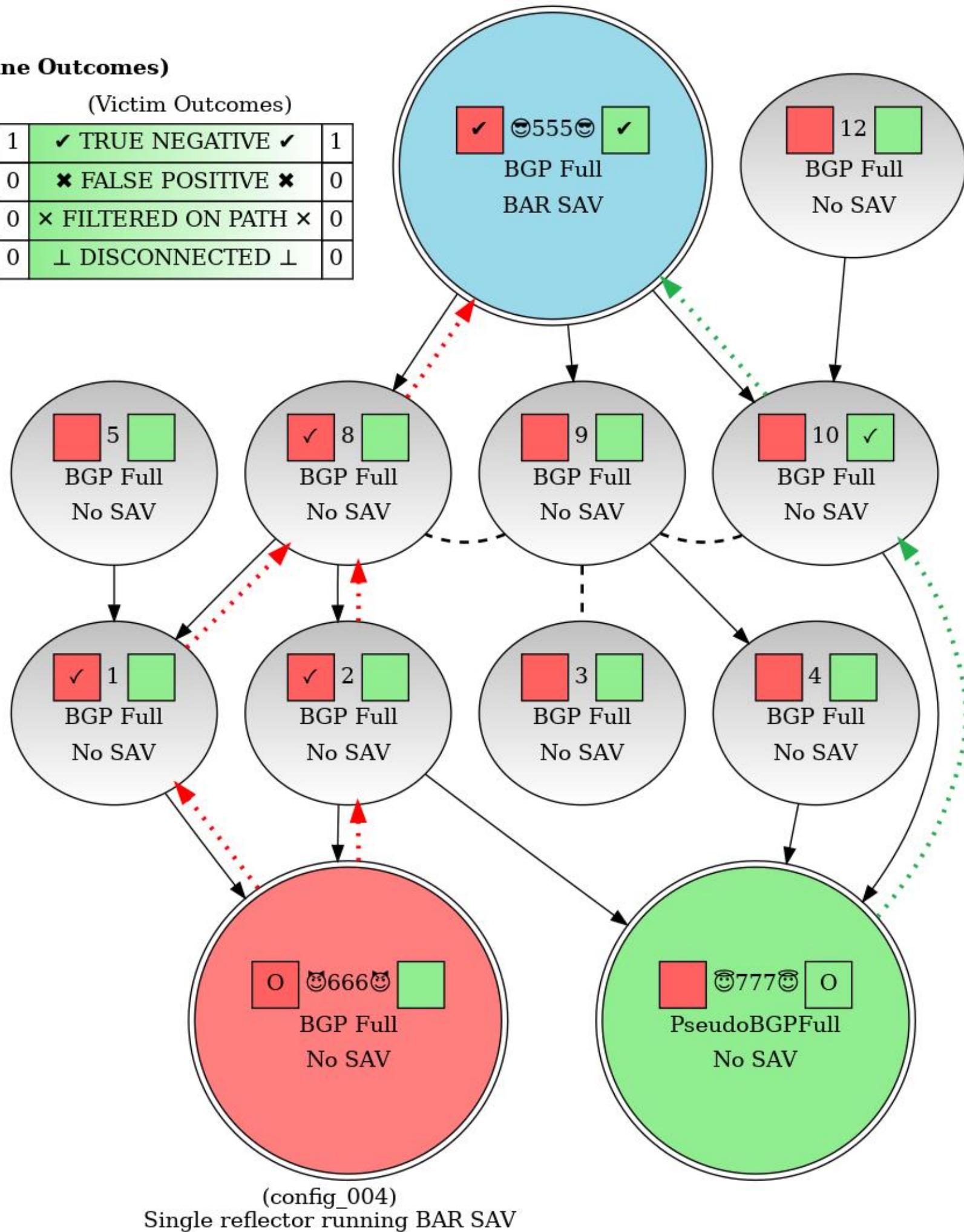
(Attacker Outcomes)		(Victim Outcomes)	
✓ FALSE NEGATIVE ✓	1	✓ TRUE NEGATIVE ✓	1
✗ TRUE POSITIVE ✗	0	✗ FALSE POSITIVE ✗	0
✗ FILTERED ON PATH ✗	0	✗ FILTERED ON PATH ✗	0
⊥ DISCONNECTED ⊥	0	⊥ DISCONNECTED ⊥	0



(config\_004 Ground Truth)  
Single reflector running BAR SAV

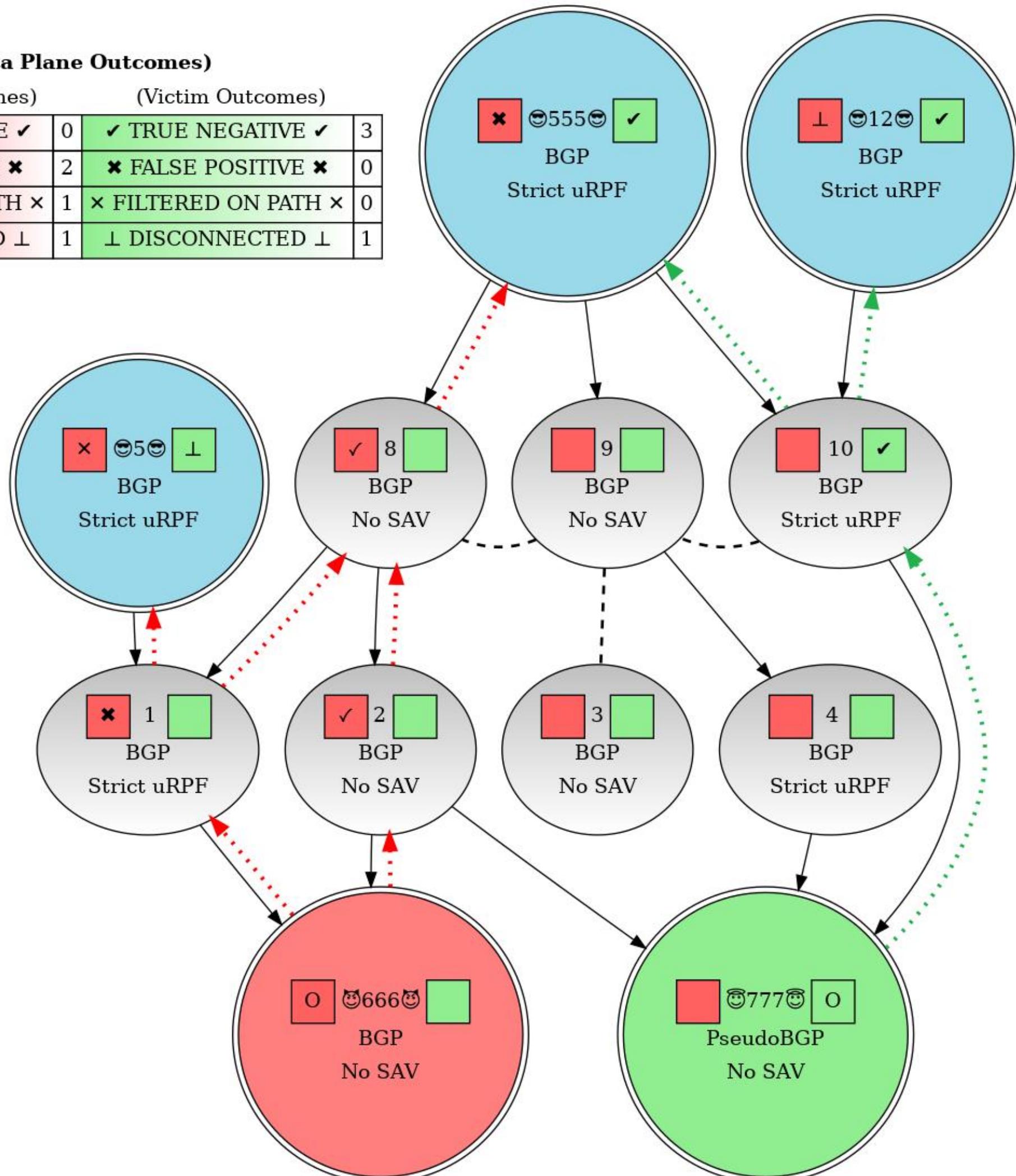
## (Data Plane Outcomes)

(Attacker Outcomes)		(Victim Outcomes)	
✓ FALSE NEGATIVE ✓	1	✓ TRUE NEGATIVE ✓	1
✗ TRUE POSITIVE ✗	0	✗ FALSE POSITIVE ✗	0
✗ FILTERED ON PATH ✗	0	✗ FILTERED ON PATH ✗	0
⊥ DISCONNECTED ⊥	0	⊥ DISCONNECTED ⊥	0



## (Data Plane Outcomes)

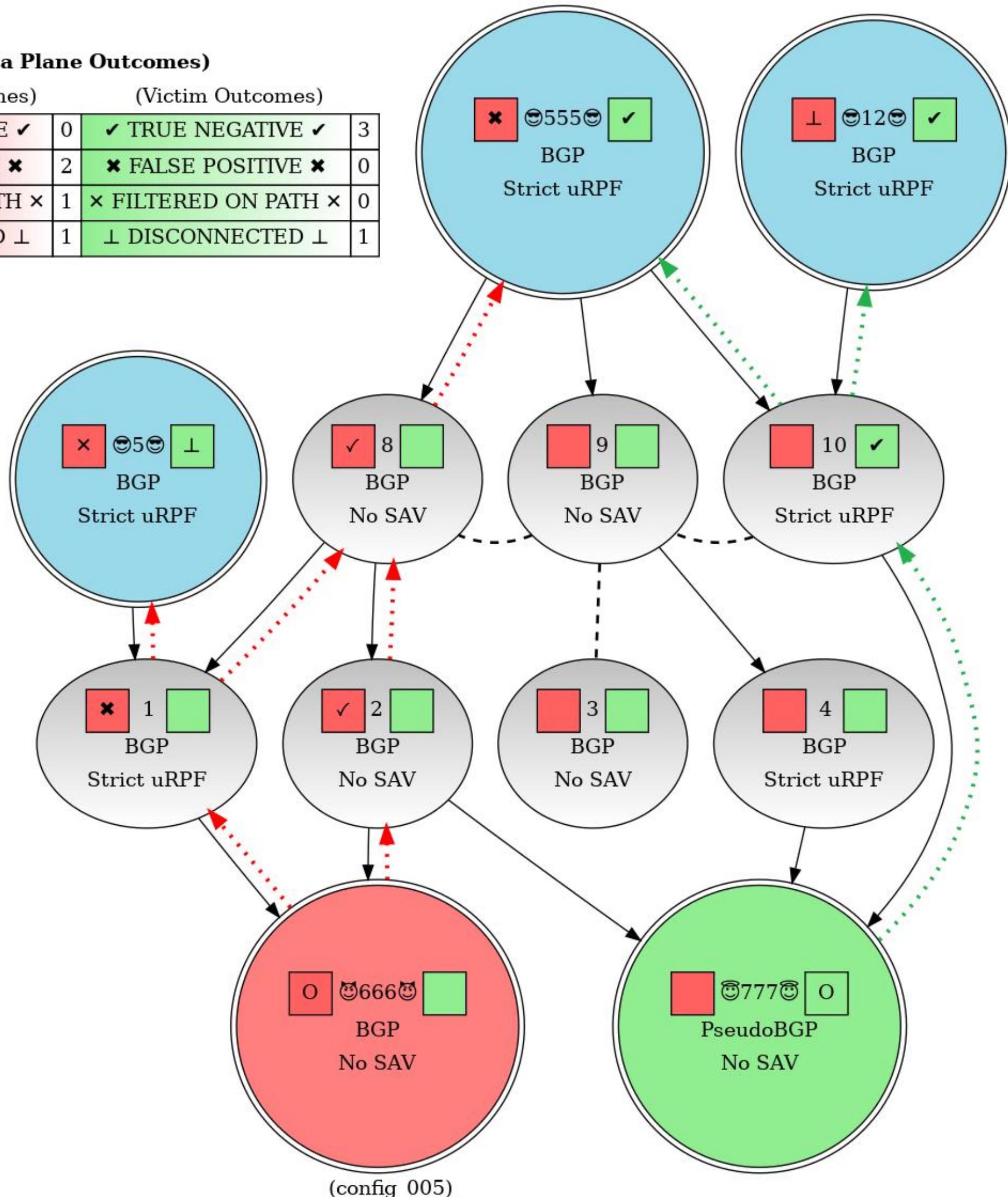
(Attacker Outcomes)		(Victim Outcomes)	
✓ FALSE NEGATIVE ✓	0	✓ TRUE NEGATIVE ✓	3
✗ TRUE POSITIVE ✗	2	✗ FALSE POSITIVE ✗	0
✗ FILTERED ON PATH ✗	1	✗ FILTERED ON PATH ✗	0
⊥ DISCONNECTED ⊥	1	⊥ DISCONNECTED ⊥	1



(config\_005 Ground Truth)  
Multiple reflector and immediate providers deploying Strict uRPF

## (Data Plane Outcomes)

(Attacker Outcomes)		(Victim Outcomes)	
✓ FALSE NEGATIVE ✓	0	✓ TRUE NEGATIVE ✓	3
✗ TRUE POSITIVE ✗	2	✗ FALSE POSITIVE ✗	0
✗ FILTERED ON PATH ✗	1	✗ FILTERED ON PATH ✗	0
⊥ DISCONNECTED ⊥	1	⊥ DISCONNECTED ⊥	1

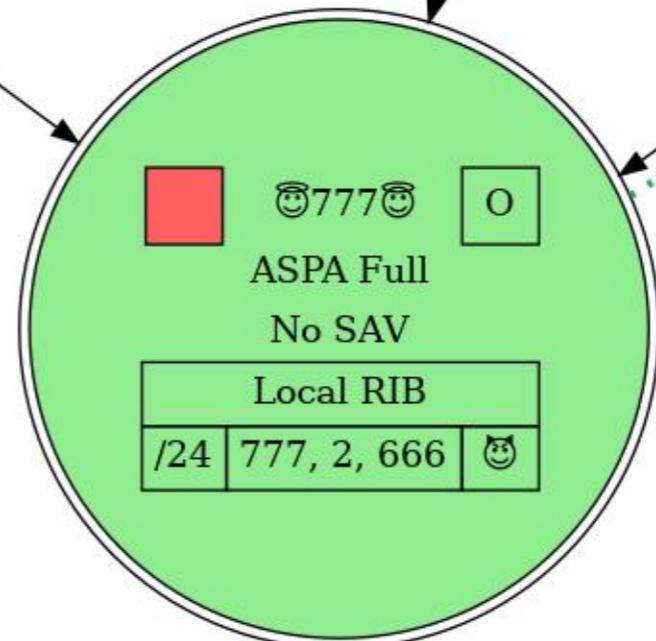
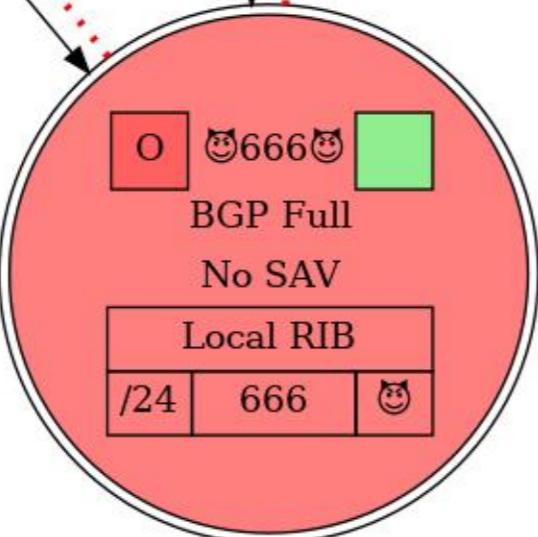
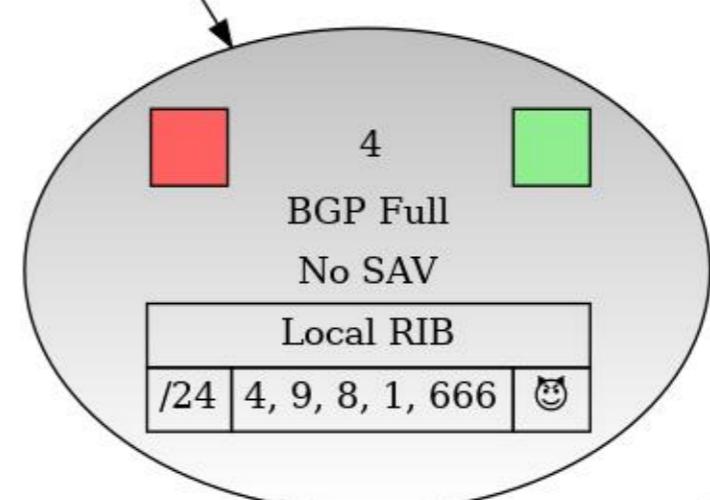
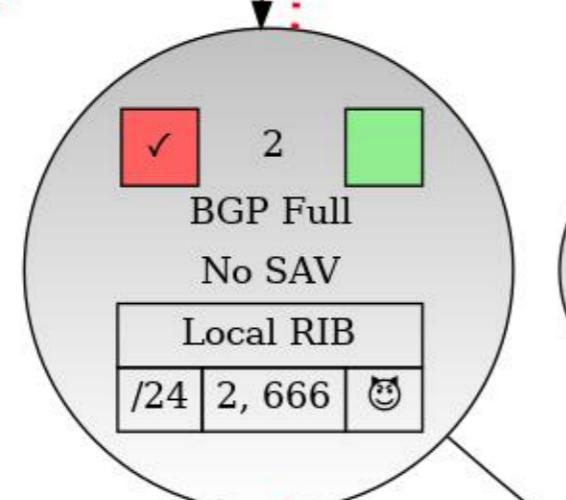
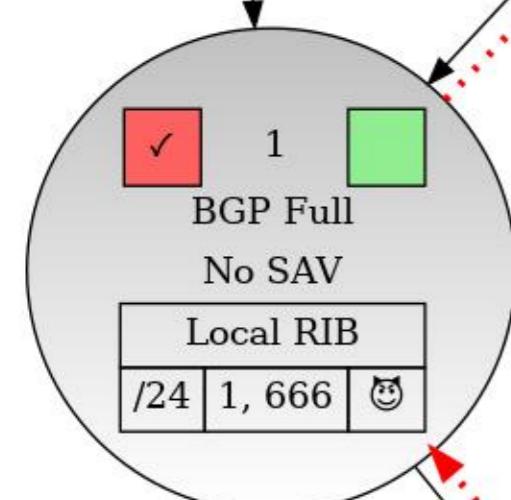
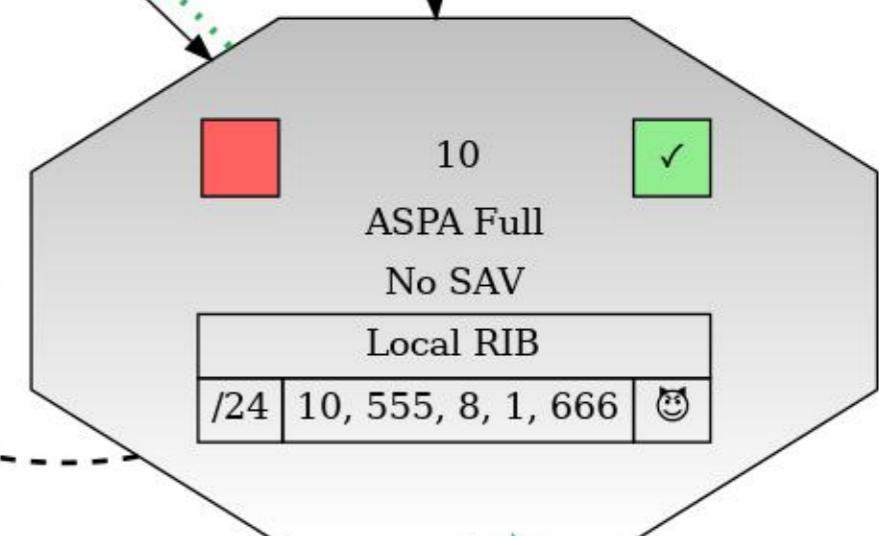
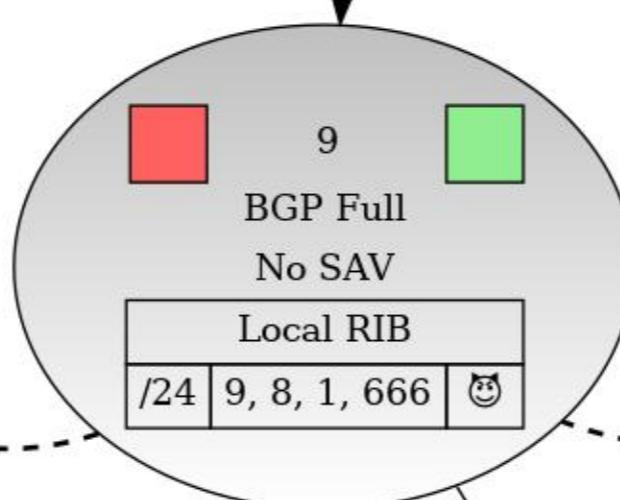
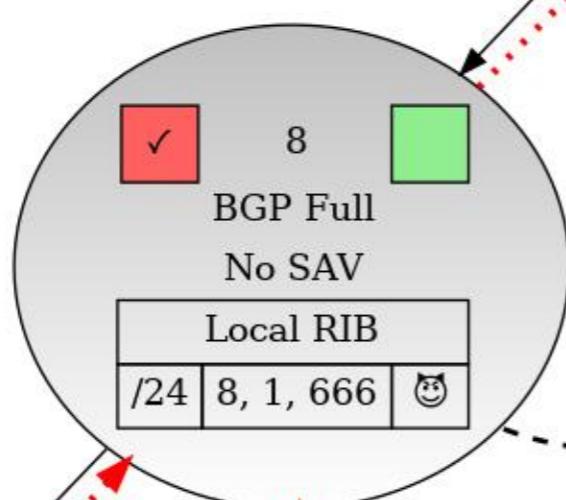
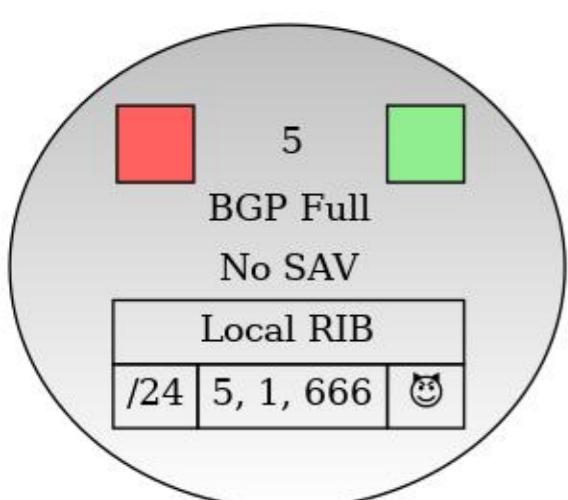
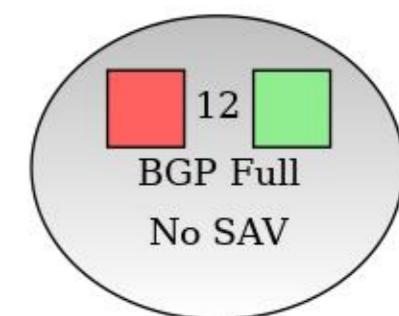
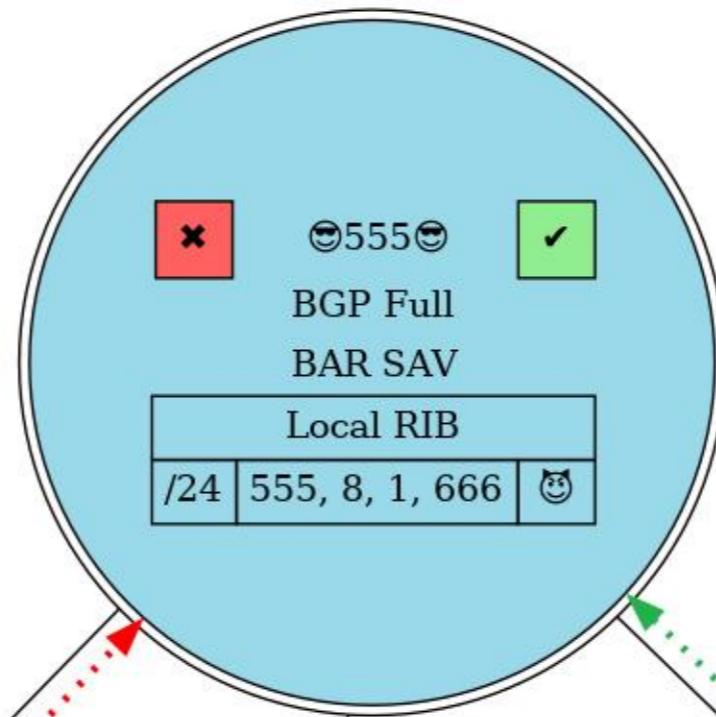


(config\_005)

Mulitple reflector and immediate providers deploying Strict uRPF

### (Data Plane Outcomes)

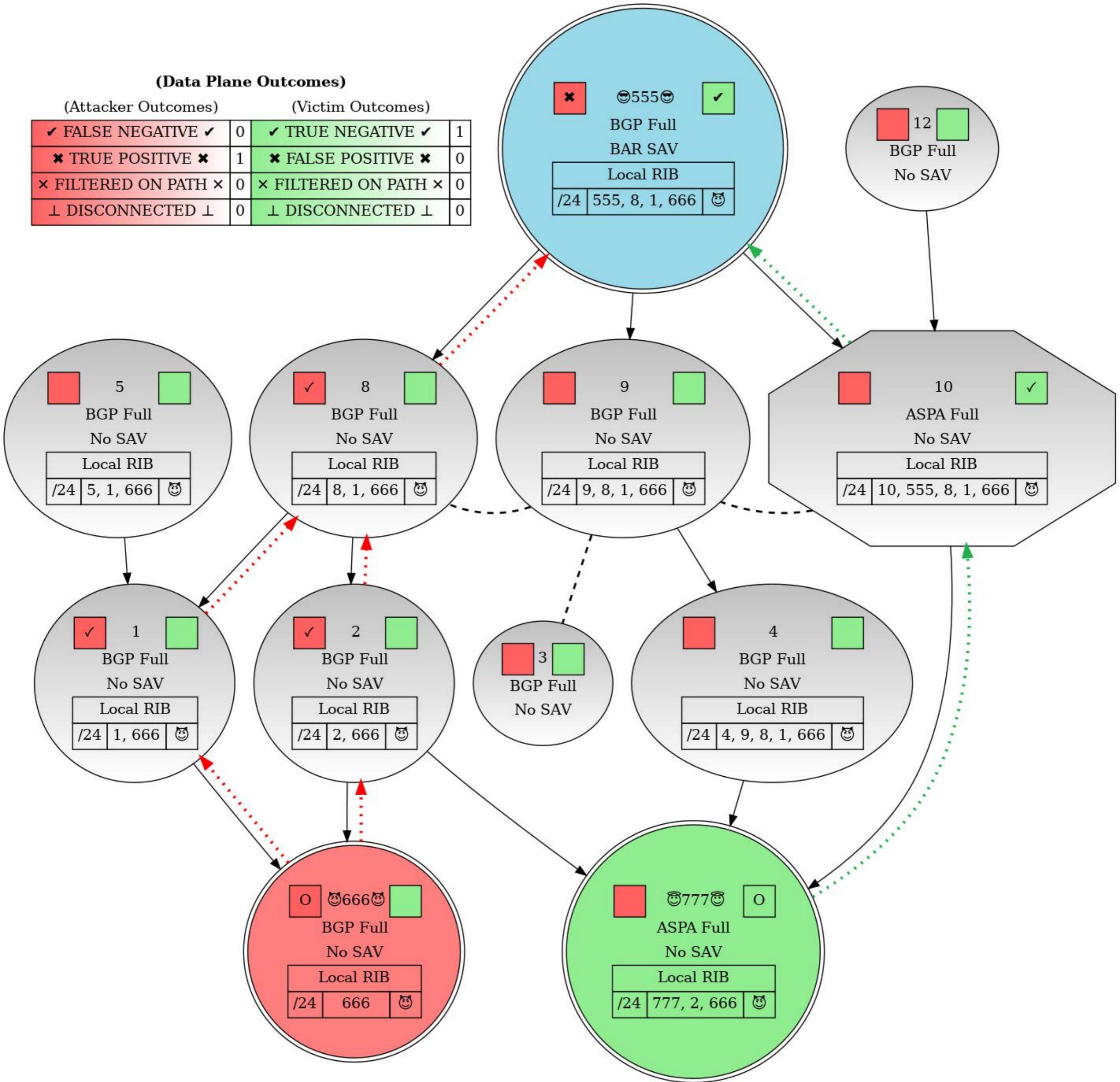
(Attacker Outcomes)		(Victim Outcomes)	
✓ FALSE NEGATIVE ✓	0	✓ TRUE NEGATIVE ✓	1
✗ TRUE POSITIVE ✗	1	✗ FALSE POSITIVE ✗	0
✗ FILTERED ON PATH ✗	0	✗ FILTERED ON PATH ✗	0
⊥ DISCONNECTED ⊥	0	⊥ DISCONNECTED ⊥	0



(config\_007 Ground Truth)  
Single reflector running BAR SAV, victim does not announce prefix

### (Data Plane Outcomes)

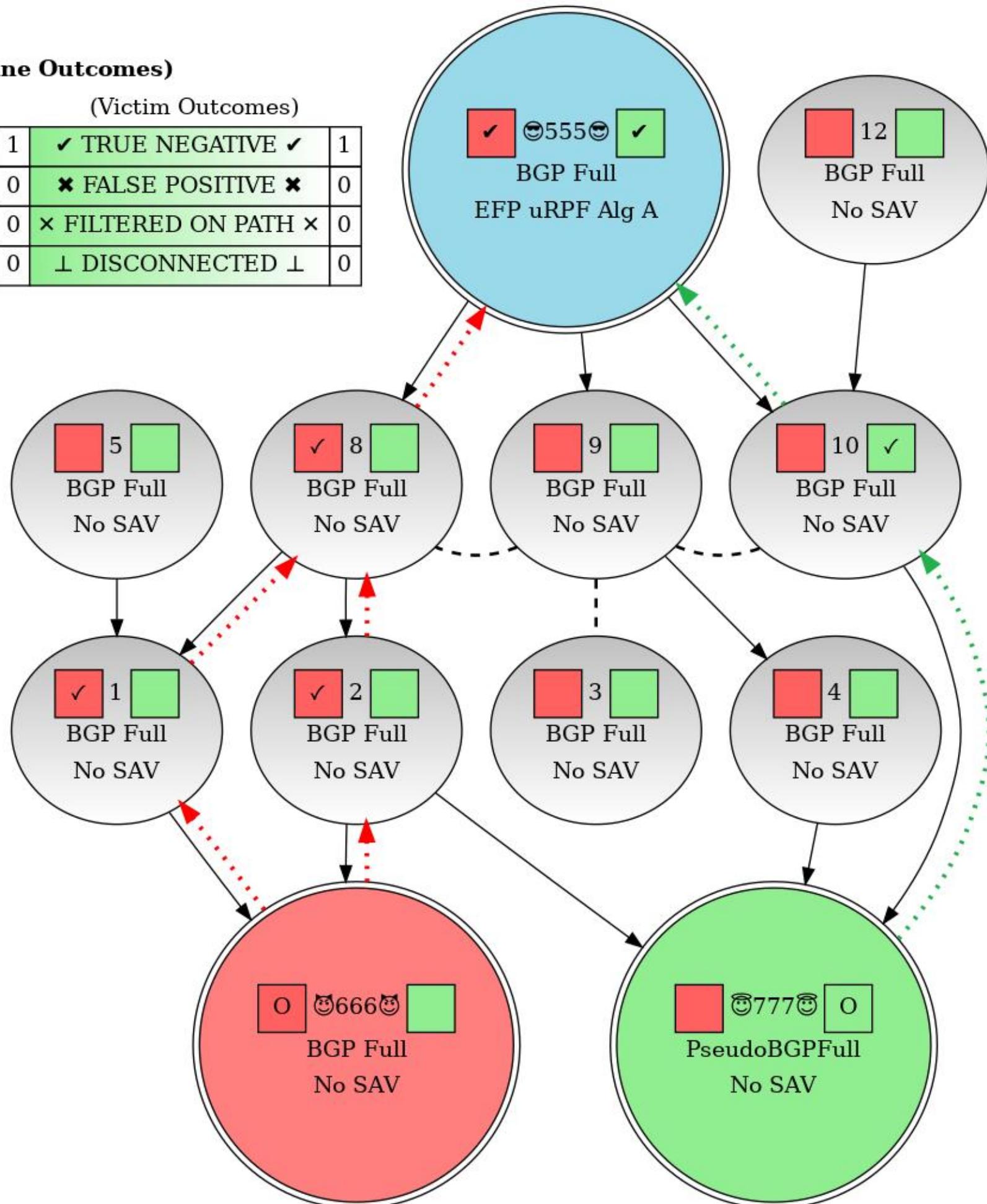
(Attacker Outcomes)		(Victim Outcomes)	
✓ FALSE NEGATIVE ✓	0	✓ TRUE NEGATIVE ✓	1
✗ TRUE POSITIVE ✗	1	✗ FALSE POSITIVE ✗	0
✗ FILTERED ON PATH ✗	0	✗ FILTERED ON PATH ✗	0
⊥ DISCONNECTED ⊥	0	⊥ DISCONNECTED ⊥	0



(config\_007)  
Single reflector running BAR SAV, victim does not announce prefix

## (Data Plane Outcomes)

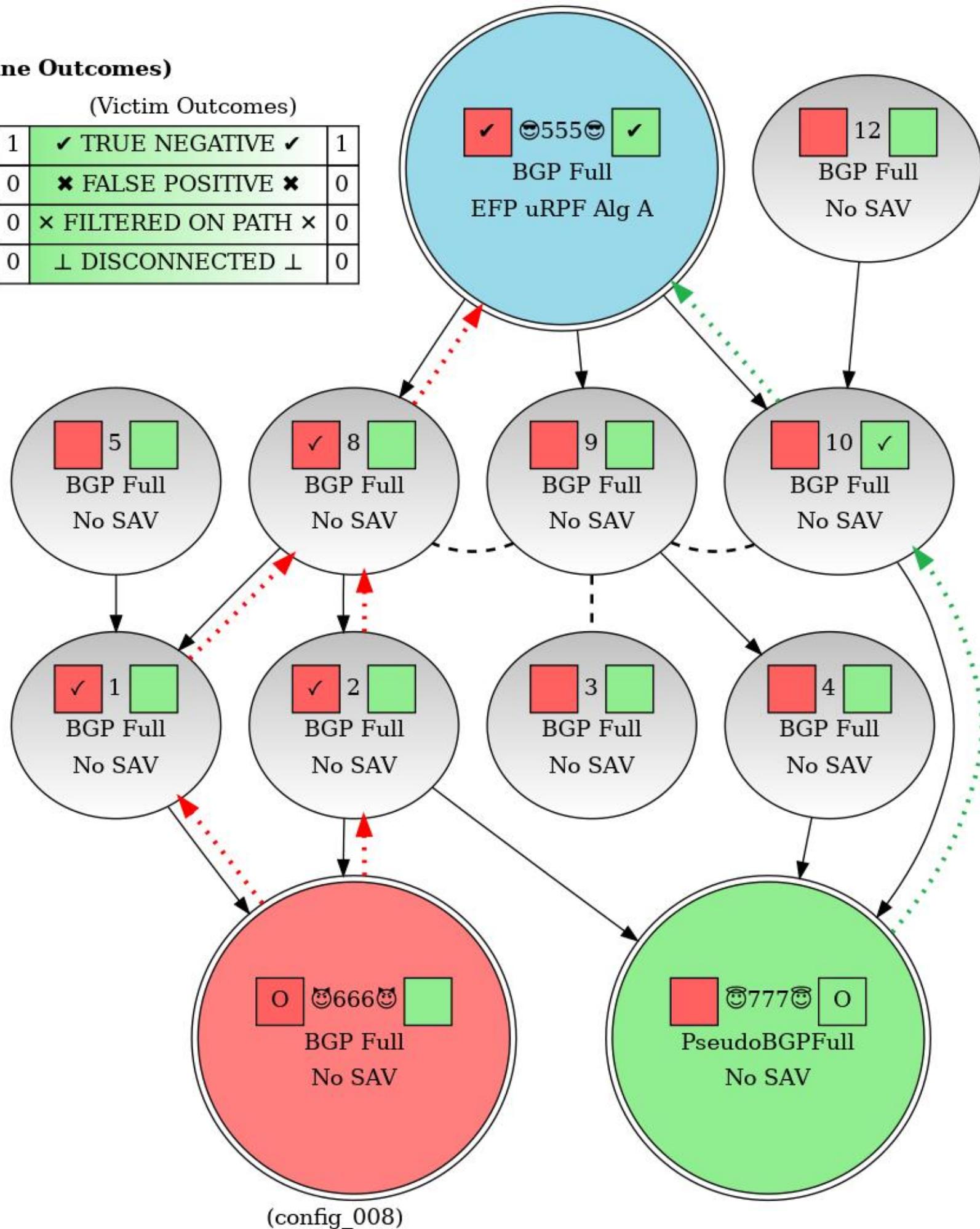
(Attacker Outcomes)		(Victim Outcomes)	
✓ FALSE NEGATIVE ✓	1	✓ TRUE NEGATIVE ✓	1
✗ TRUE POSITIVE ✗	0	✗ FALSE POSITIVE ✗	0
✗ FILTERED ON PATH ✗	0	✗ FILTERED ON PATH ✗	0
⊥ DISCONNECTED ⊥	0	⊥ DISCONNECTED ⊥	0



(config\_008 Ground Truth)  
Single reflector running Enhanced Feasible Path uRPF Algorithm A

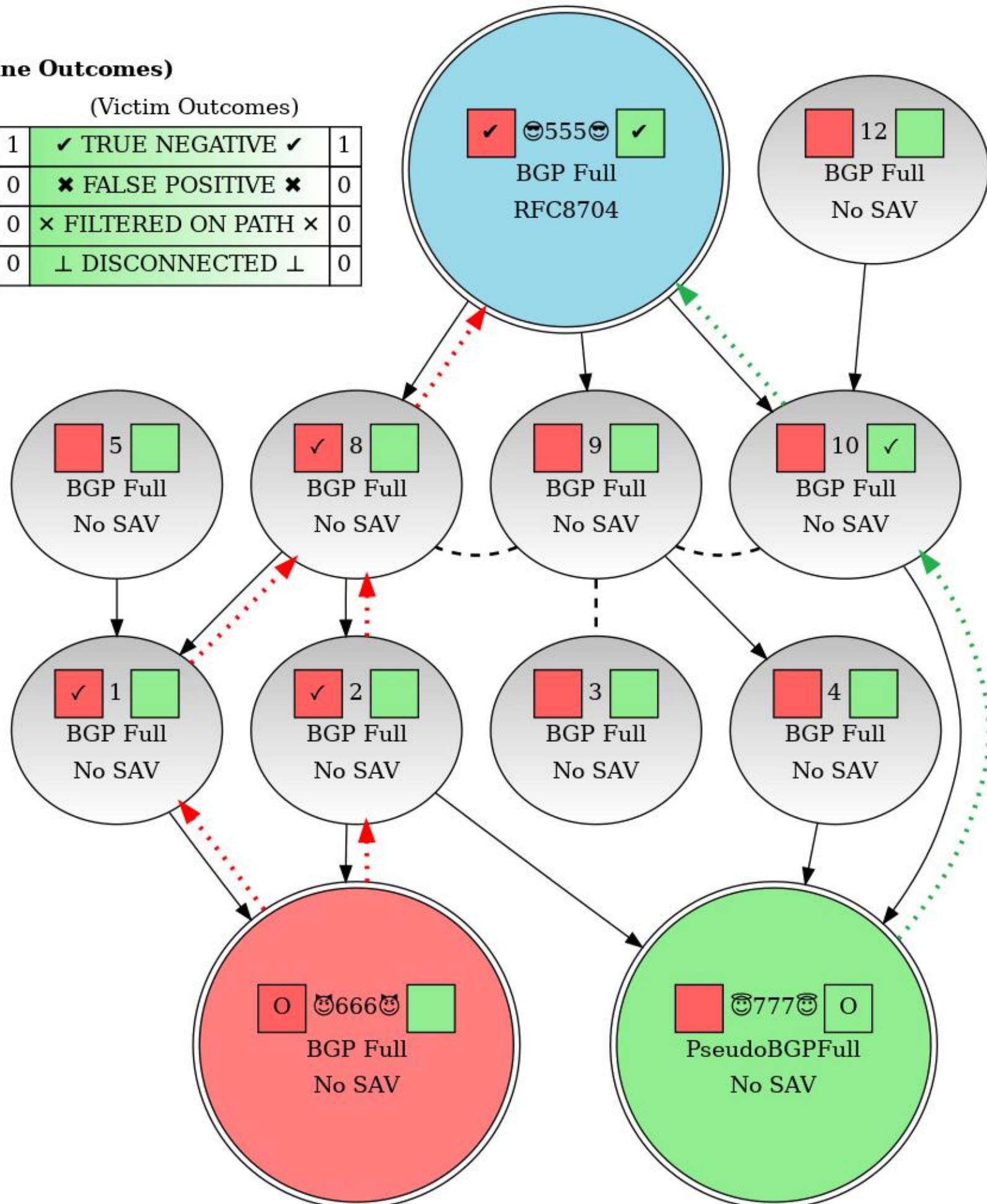
## (Data Plane Outcomes)

(Attacker Outcomes)		(Victim Outcomes)	
✓ FALSE NEGATIVE ✓	1	✓ TRUE NEGATIVE ✓	1
✗ TRUE POSITIVE ✗	0	✗ FALSE POSITIVE ✗	0
✗ FILTERED ON PATH ✗	0	✗ FILTERED ON PATH ✗	0
⊥ DISCONNECTED ⊥	0	⊥ DISCONNECTED ⊥	0



## (Data Plane Outcomes)

(Attacker Outcomes)		(Victim Outcomes)	
✓ FALSE NEGATIVE ✓	1	✓ TRUE NEGATIVE ✓	1
✗ TRUE POSITIVE ✗	0	✗ FALSE POSITIVE ✗	0
✗ FILTERED ON PATH ✗	0	✗ FILTERED ON PATH ✗	0
⊥ DISCONNECTED ⊥	0	⊥ DISCONNECTED ⊥	0

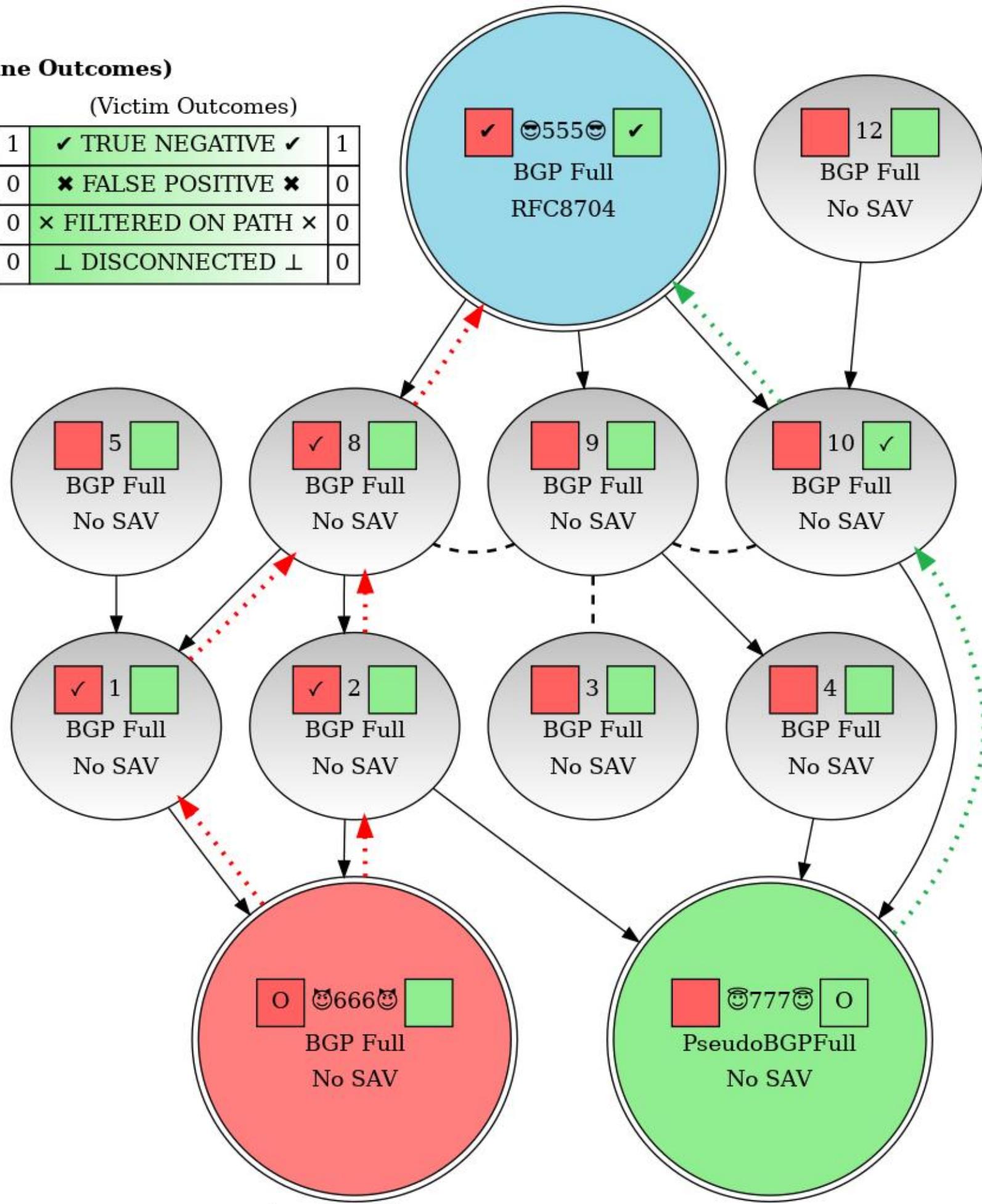


(config\_009 Ground Truth)  
Single reflector running RFC8704 Security Recommendations

## (Data Plane Outcomes)

(Attacker Outcomes)		(Victim Outcomes)	
✓ FALSE NEGATIVE ✓	1	✓ TRUE NEGATIVE ✓	1
✗ TRUE POSITIVE ✗	0	✗ FALSE POSITIVE ✗	0
✗ FILTERED ON PATH ✗	0	✗ FILTERED ON PATH ✗	0
⊥ DISCONNECTED ⊥	0	⊥ DISCONNECTED ⊥	0

(config\_009)  
Single reflector running RFC8704 Security Recommendations

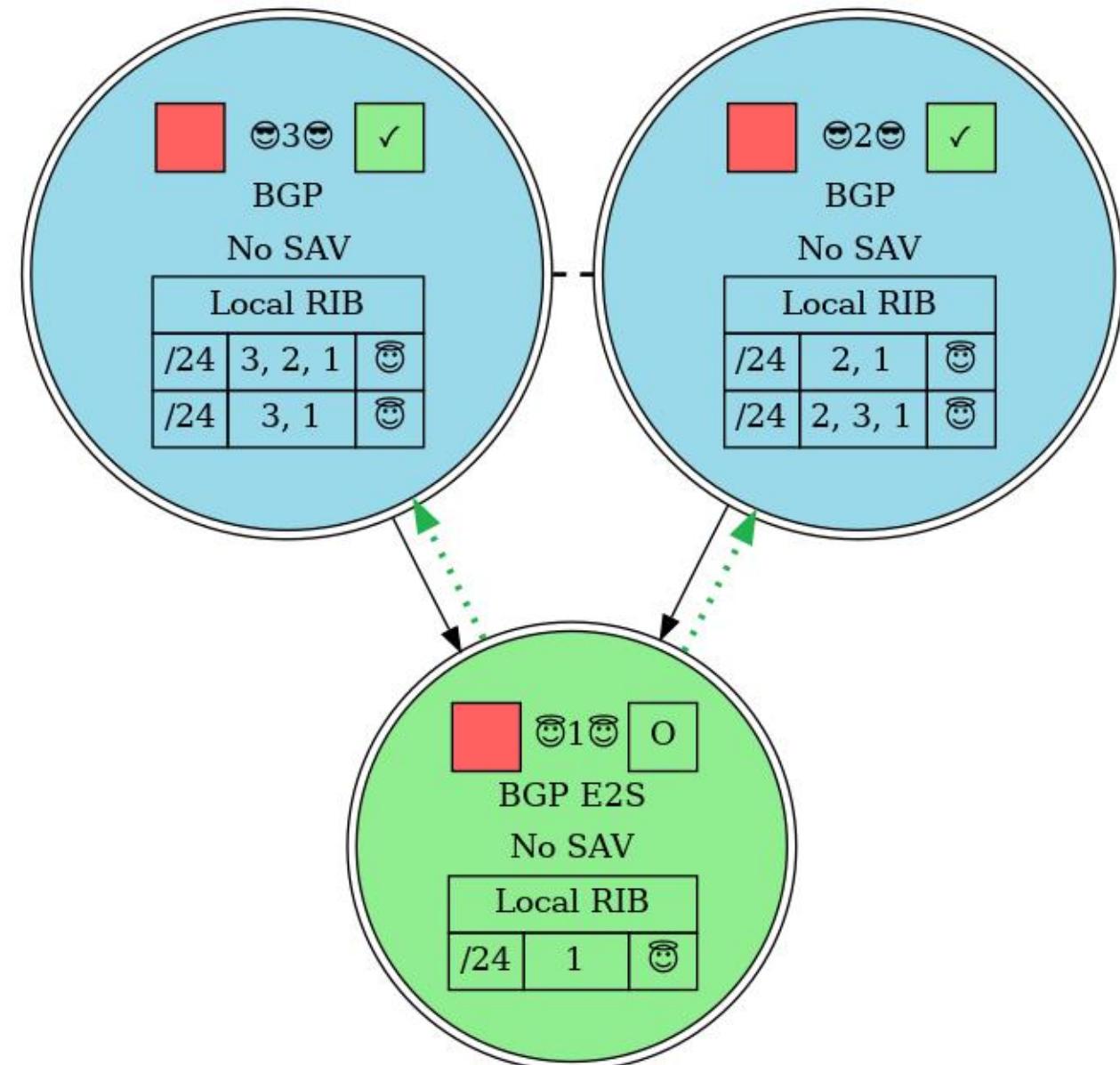


### (Data Plane Outcomes)

(Attacker Outcomes)

✓ FALSE NEGATIVE ✓	0	✓ TRUE NEGATIVE ✓	0
✗ TRUE POSITIVE ✗	0	✗ FALSE POSITIVE ✗	0
✗ FILTERED ON PATH ✗	0	✗ FILTERED ON PATH ✗	0
⊥ DISCONNECTED ⊥	0	⊥ DISCONNECTED ⊥	0

(Victim Outcomes)



(config\_010 Ground Truth)

### (Data Plane Outcomes)

(Attacker Outcomes)

✓ FALSE NEGATIVE ✓ 0

✗ TRUE POSITIVE ✗ 0

✗ FILTERED ON PATH ✗ 0

⊥ DISCONNECTED ⊥ 0

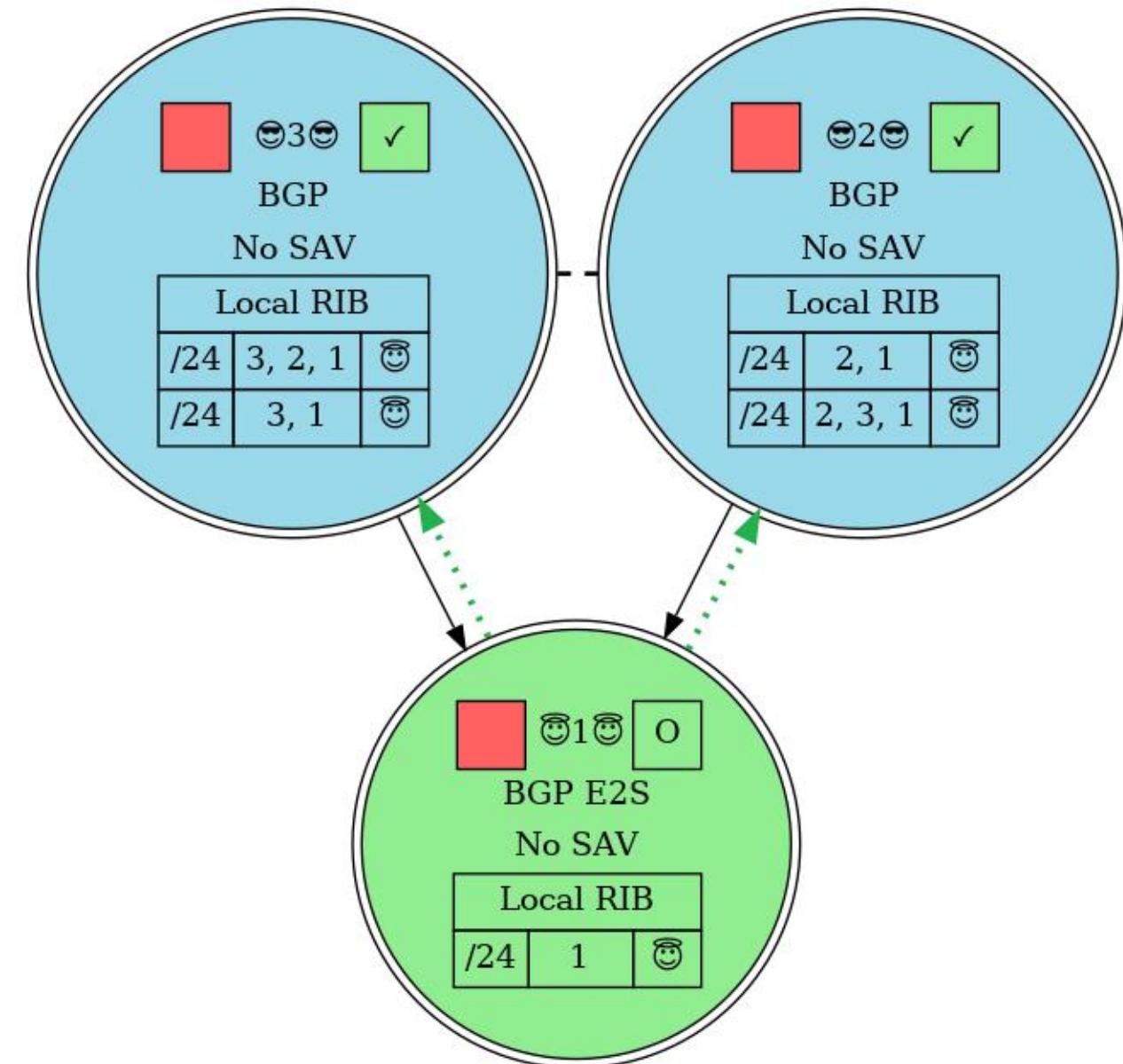
(Victim Outcomes)

✓ TRUE NEGATIVE ✓ 0

✗ FALSE POSITIVE ✗ 0

✗ FILTERED ON PATH ✗ 0

⊥ DISCONNECTED ⊥ 0



(config\_010)

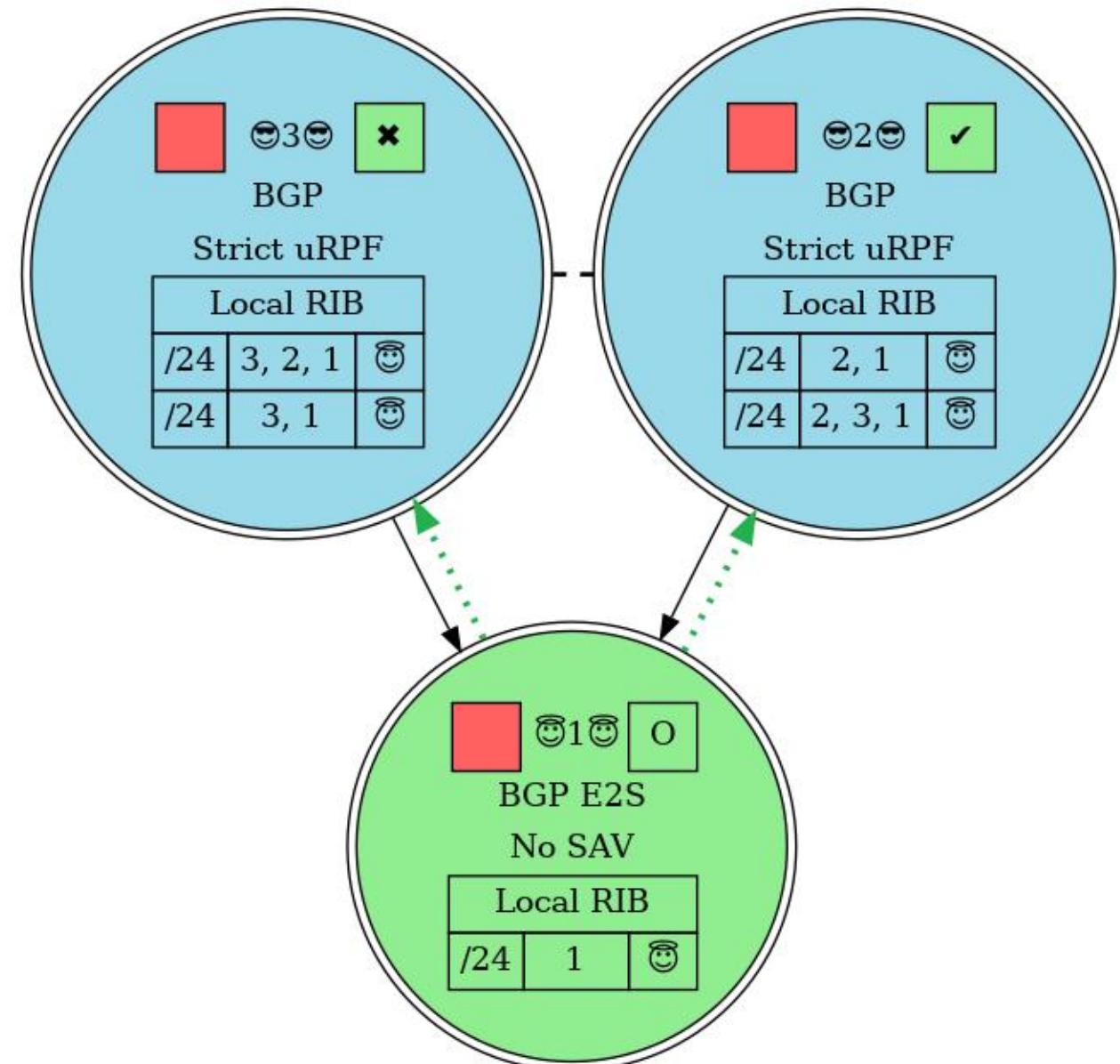
### (Data Plane Outcomes)

(Attacker Outcomes)

✓ FALSE NEGATIVE ✓	0
✗ TRUE POSITIVE ✗	0
✗ FILTERED ON PATH ✗	0
⊥ DISCONNECTED ⊥	0

(Victim Outcomes)

✓ TRUE NEGATIVE ✓	1
✗ FALSE POSITIVE ✗	1
✗ FILTERED ON PATH ✗	0
⊥ DISCONNECTED ⊥	0



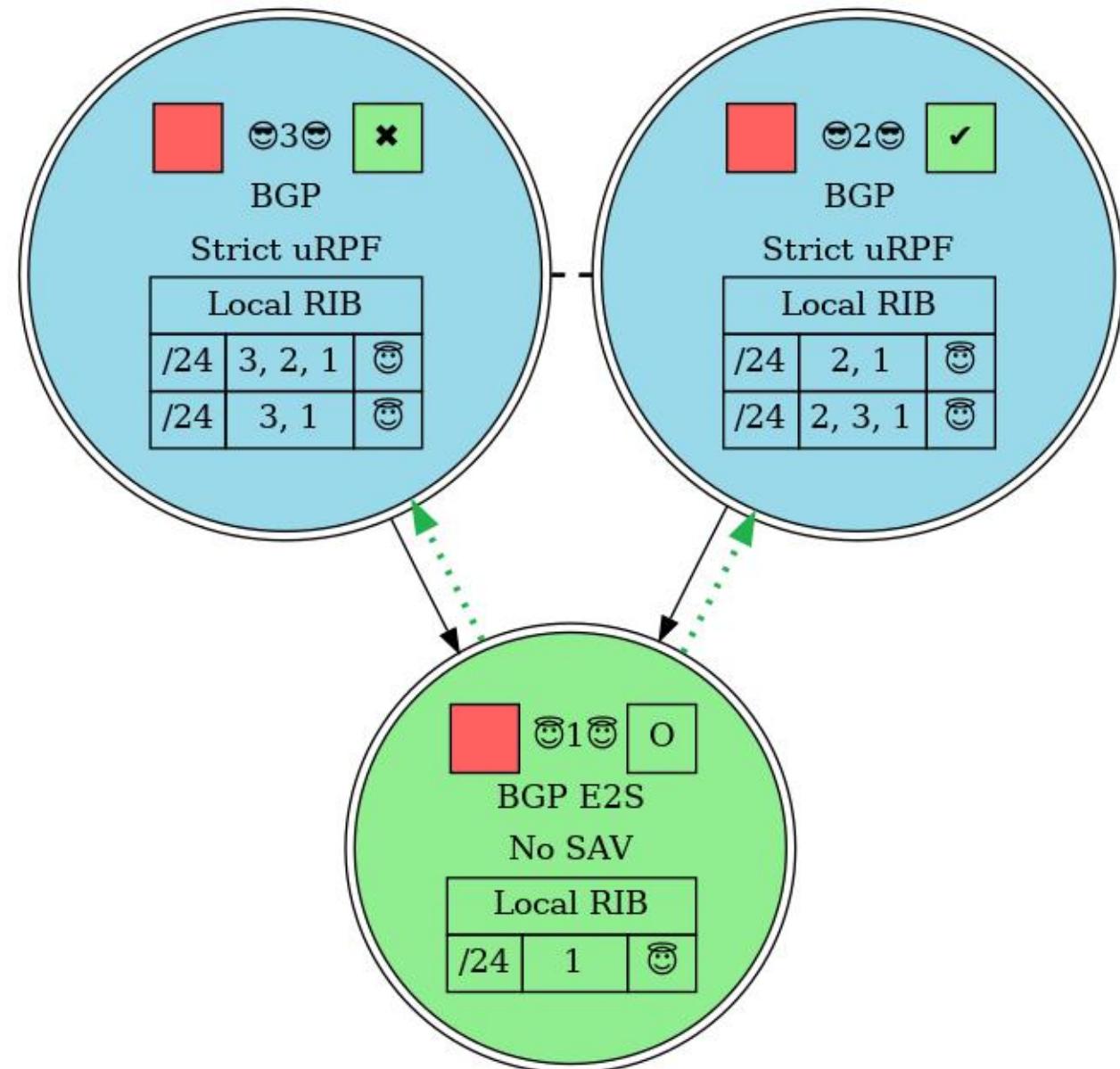
(config\_011 Ground Truth)

### (Data Plane Outcomes)

(Attacker Outcomes)

(Victim Outcomes)

✓ FALSE NEGATIVE ✓	0	✓ TRUE NEGATIVE ✓	1
✗ TRUE POSITIVE ✗	0	✗ FALSE POSITIVE ✗	1
✗ FILTERED ON PATH ✗	0	✗ FILTERED ON PATH ✗	0
⊥ DISCONNECTED ⊥	0	⊥ DISCONNECTED ⊥	0



(config\_011)

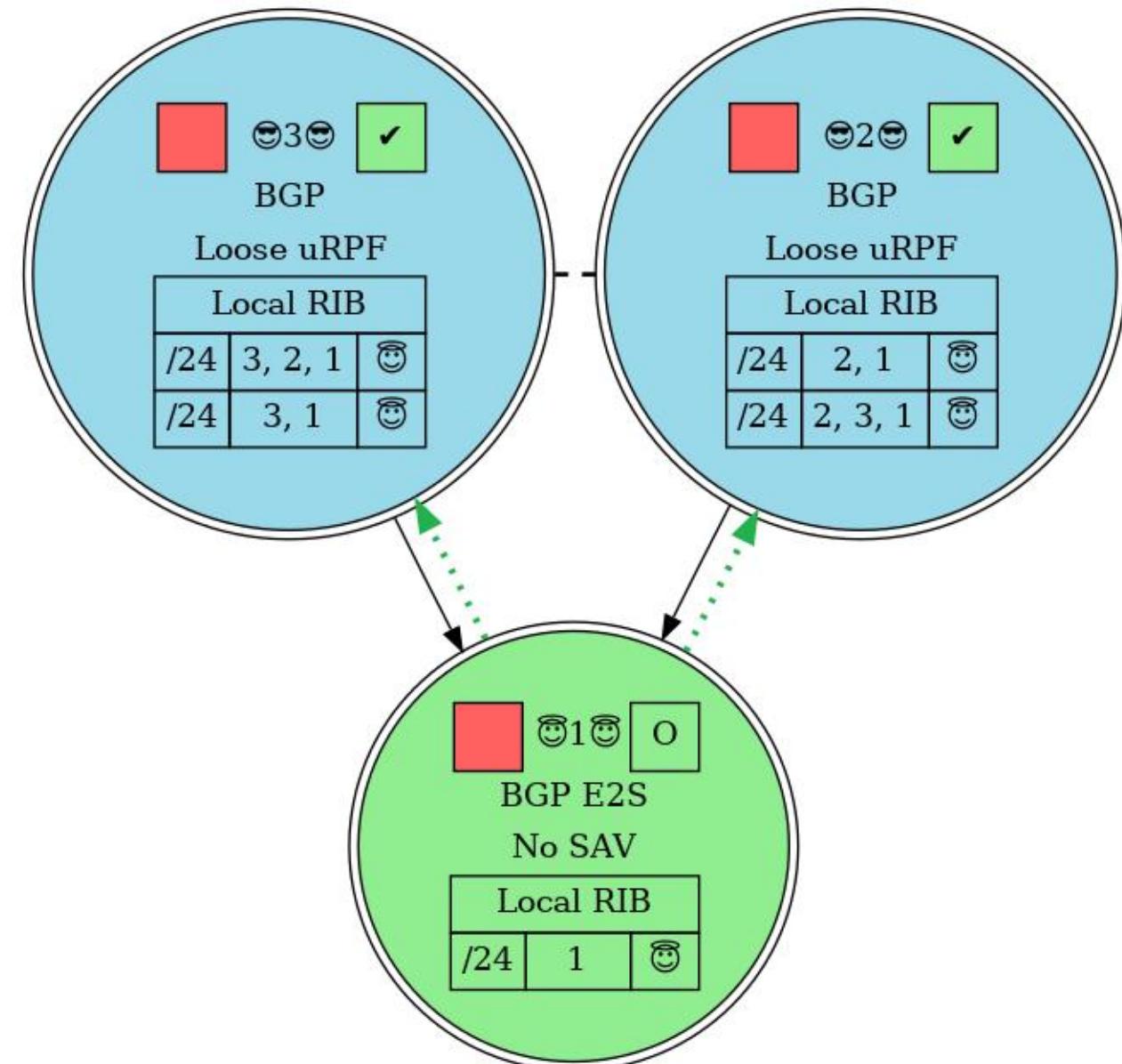
### (Data Plane Outcomes)

(Attacker Outcomes)

✓ FALSE NEGATIVE ✓	0
✗ TRUE POSITIVE ✗	0
✗ FILTERED ON PATH ✗	0
⊥ DISCONNECTED ⊥	0

(Victim Outcomes)

✓ TRUE NEGATIVE ✓	2
✗ FALSE POSITIVE ✗	0
✗ FILTERED ON PATH ✗	0
⊥ DISCONNECTED ⊥	0



(config\_012 Ground Truth)

### (Data Plane Outcomes)

(Attacker Outcomes)

✓ FALSE NEGATIVE ✓ 0

\* TRUE POSITIVE \* 0

\* FILTERED ON PATH \* 0

⊥ DISCONNECTED ⊥ 0

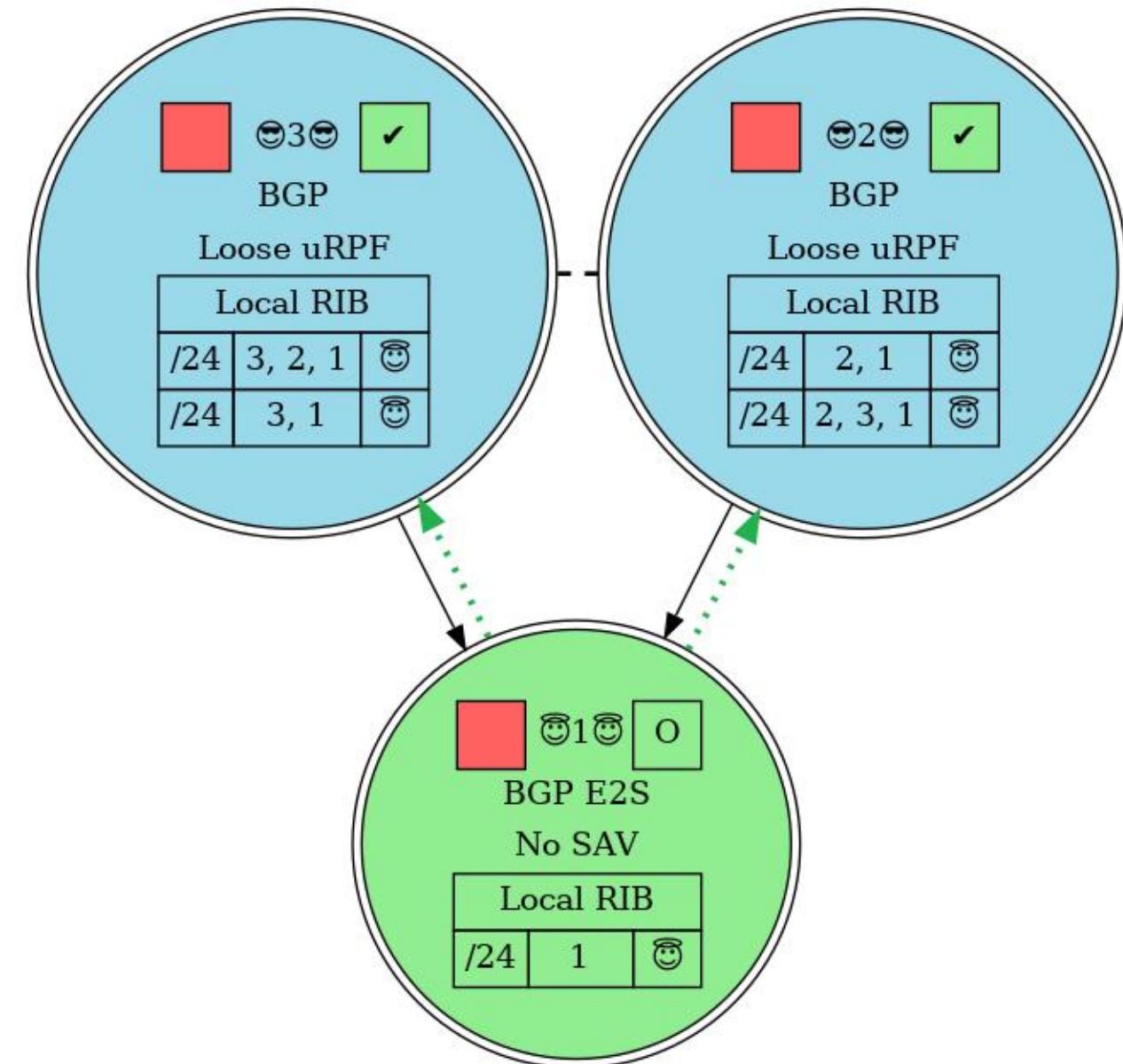
(Victim Outcomes)

✓ TRUE NEGATIVE ✓ 2

\* FALSE POSITIVE \* 0

\* FILTERED ON PATH \* 0

⊥ DISCONNECTED ⊥ 0



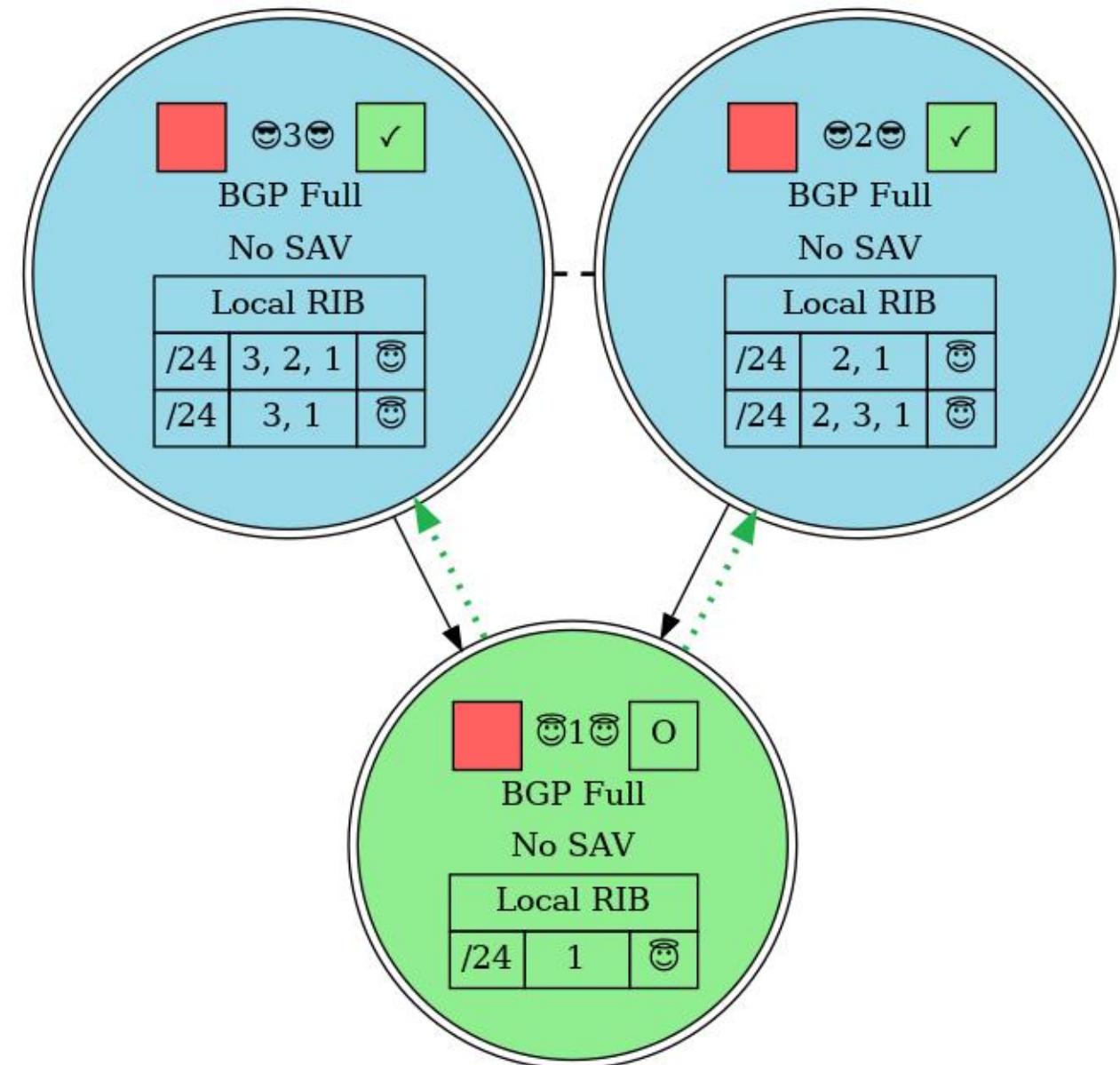
(config\_012)

### (Data Plane Outcomes)

(Attacker Outcomes)

✓ FALSE NEGATIVE ✓	0	✓ TRUE NEGATIVE ✓	0
✗ TRUE POSITIVE ✗	0	✗ FALSE POSITIVE ✗	0
✗ FILTERED ON PATH ✗	0	✗ FILTERED ON PATH ✗	0
⊥ DISCONNECTED ⊥	0	⊥ DISCONNECTED ⊥	0

(Victim Outcomes)



(config\_013 Ground Truth)

### (Data Plane Outcomes)

(Attacker Outcomes)

✓ FALSE NEGATIVE ✓ 0

✗ TRUE POSITIVE ✗ 0

✗ FILTERED ON PATH ✗ 0

⊥ DISCONNECTED ⊥ 0

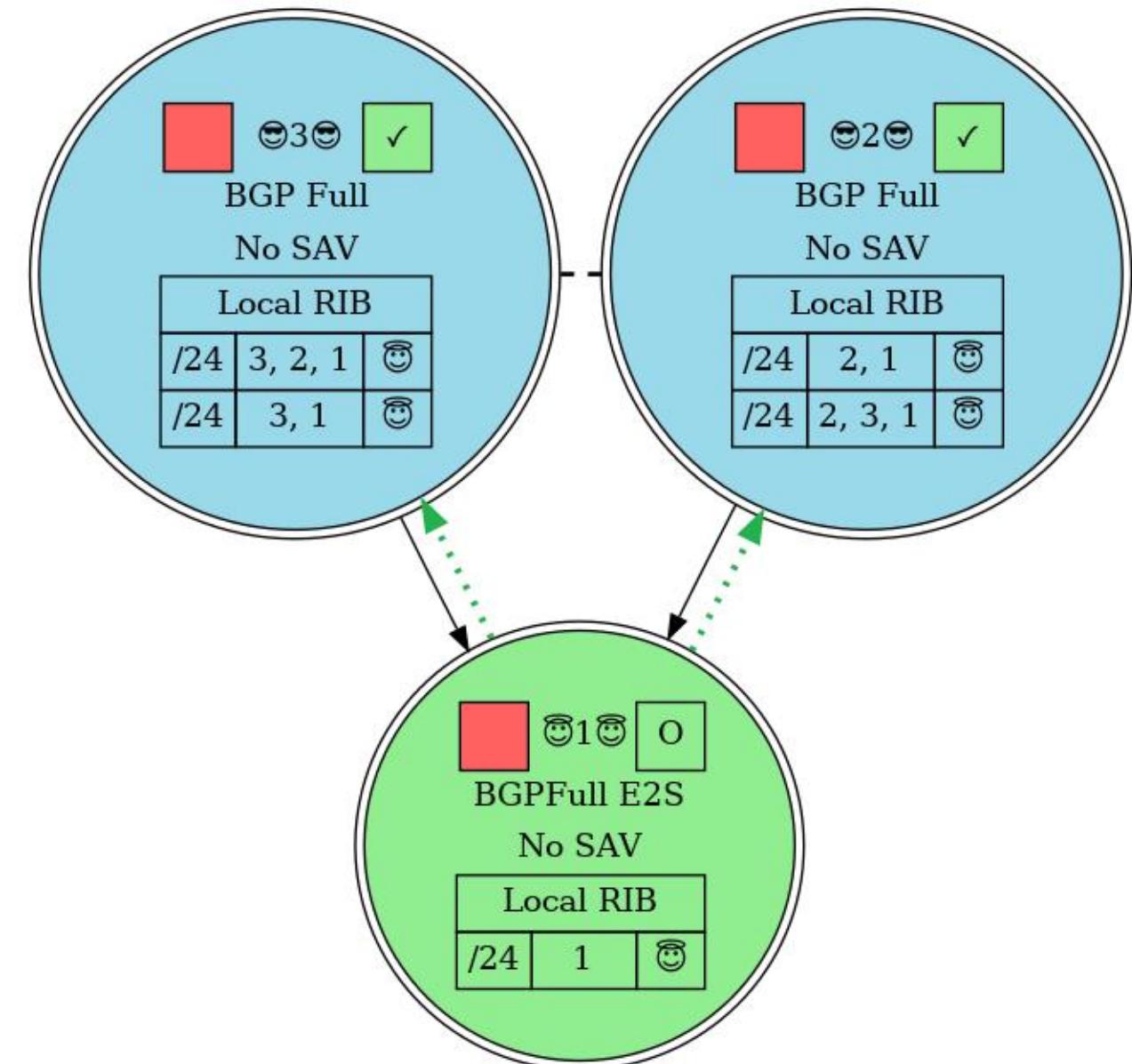
(Victim Outcomes)

✓ TRUE NEGATIVE ✓ 0

✗ FALSE POSITIVE ✗ 0

✗ FILTERED ON PATH ✗ 0

⊥ DISCONNECTED ⊥ 0



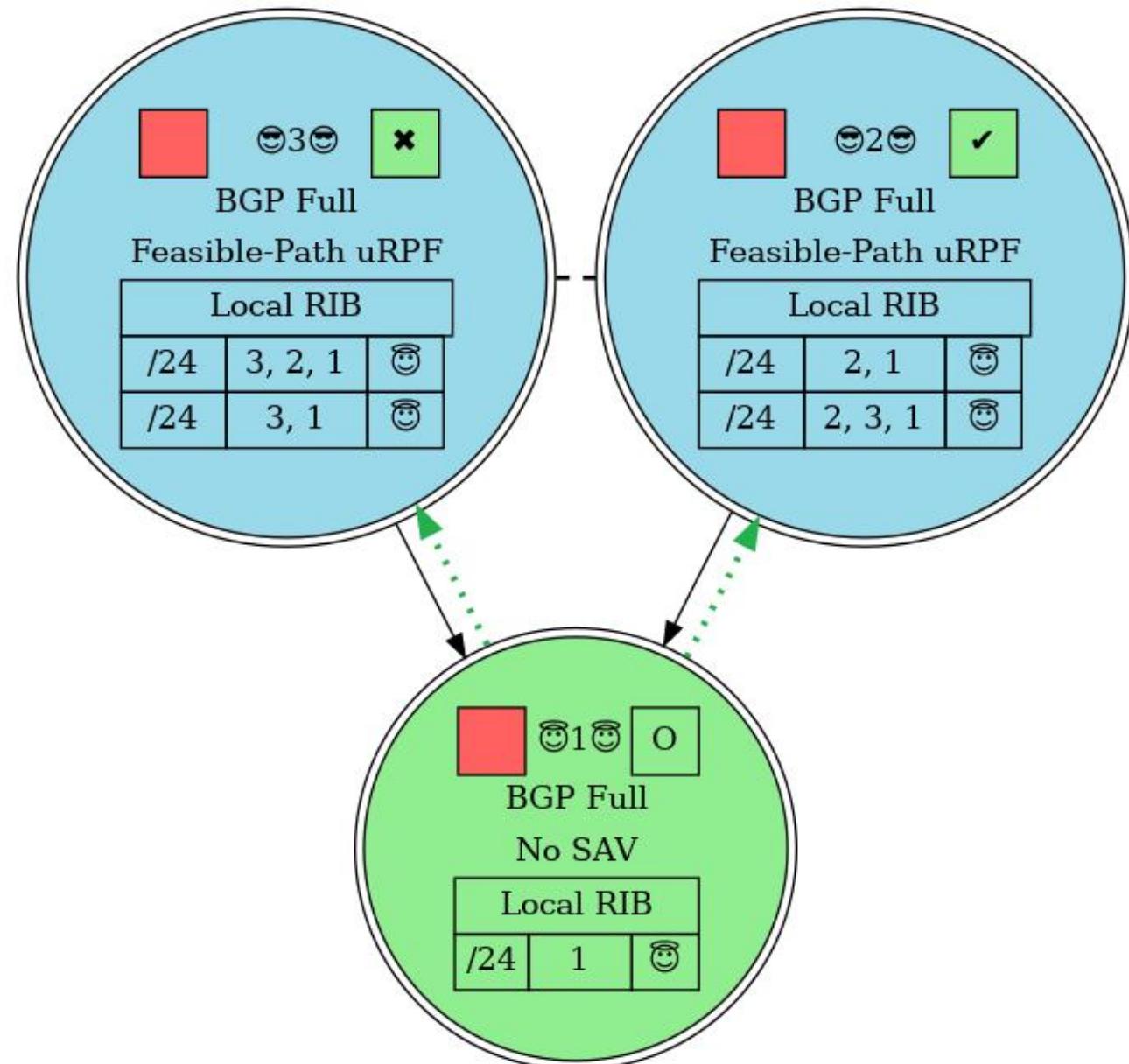
(config\_013)

### (Data Plane Outcomes)

(Attacker Outcomes)

(Victim Outcomes)

✓ FALSE NEGATIVE ✓	0	✓ TRUE NEGATIVE ✓	1
✗ TRUE POSITIVE ✗	0	✗ FALSE POSITIVE ✗	1
✗ FILTERED ON PATH ✗	0	✗ FILTERED ON PATH ✗	0
⊥ DISCONNECTED ⊥	0	⊥ DISCONNECTED ⊥	0



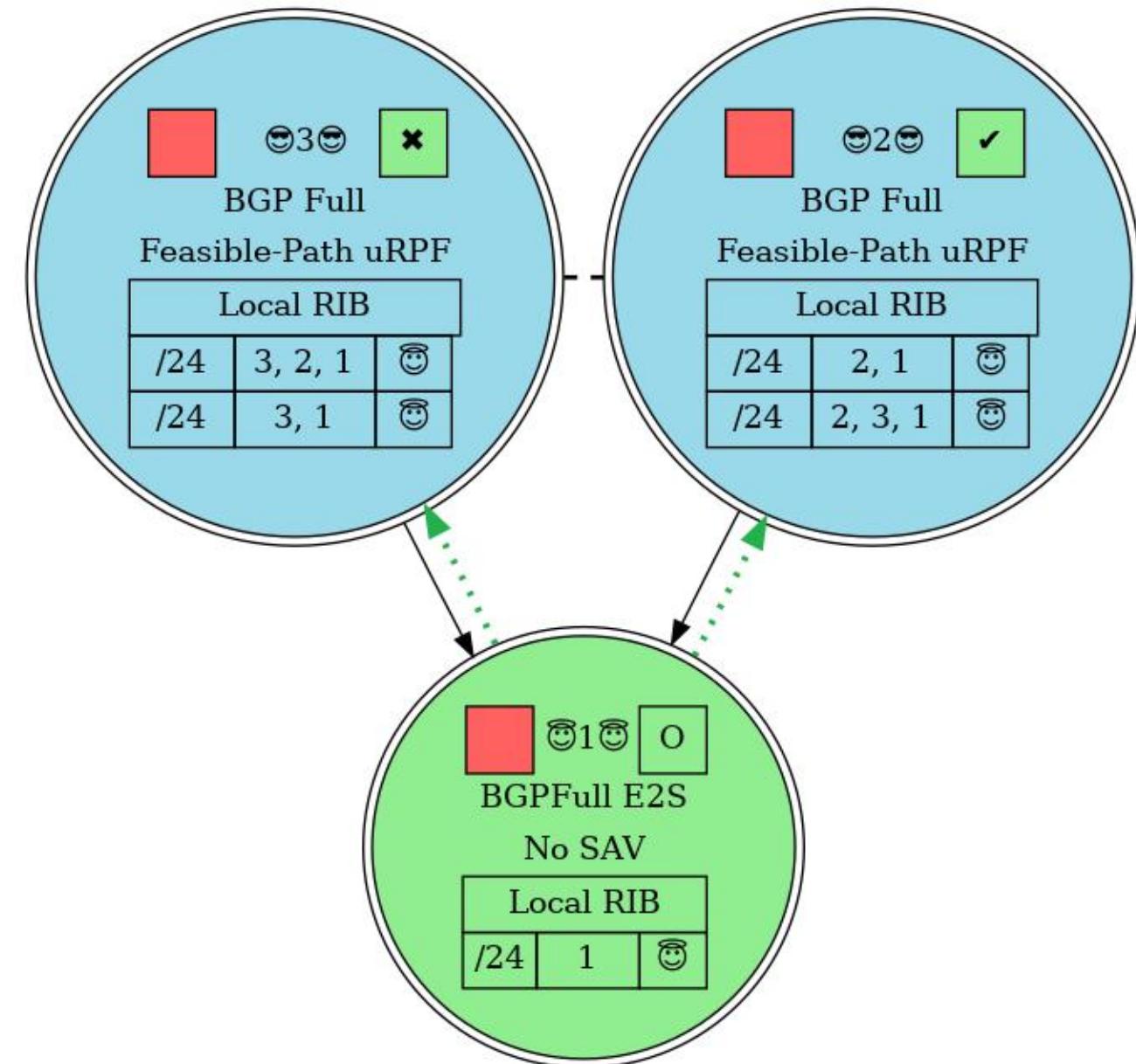
(config\_014 Ground Truth)

### (Data Plane Outcomes)

(Attacker Outcomes)

✓ FALSE NEGATIVE ✓	0	✓ TRUE NEGATIVE ✓	1
✗ TRUE POSITIVE ✗	0	✗ FALSE POSITIVE ✗	1
✗ FILTERED ON PATH ✗	0	✗ FILTERED ON PATH ✗	0
⊥ DISCONNECTED ⊥	0	⊥ DISCONNECTED ⊥	0

(Victim Outcomes)



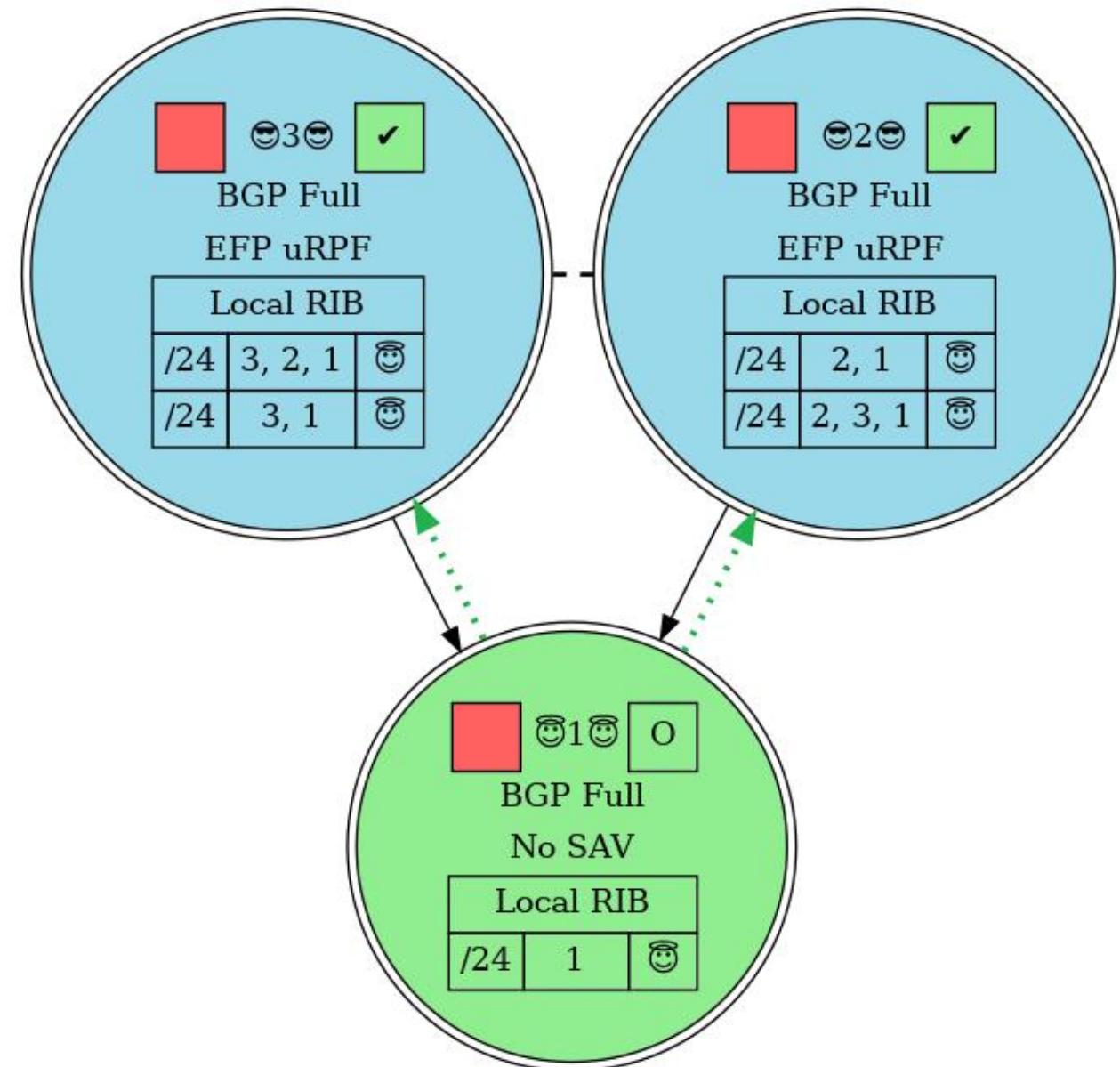
(config\_014)

### (Data Plane Outcomes)

(Attacker Outcomes)

✓ FALSE NEGATIVE ✓	0	✓ TRUE NEGATIVE ✓	2
✗ TRUE POSITIVE ✗	0	✗ FALSE POSITIVE ✗	0
✗ FILTERED ON PATH ✗	0	✗ FILTERED ON PATH ✗	0
⊥ DISCONNECTED ⊥	0	⊥ DISCONNECTED ⊥	0

(Victim Outcomes)



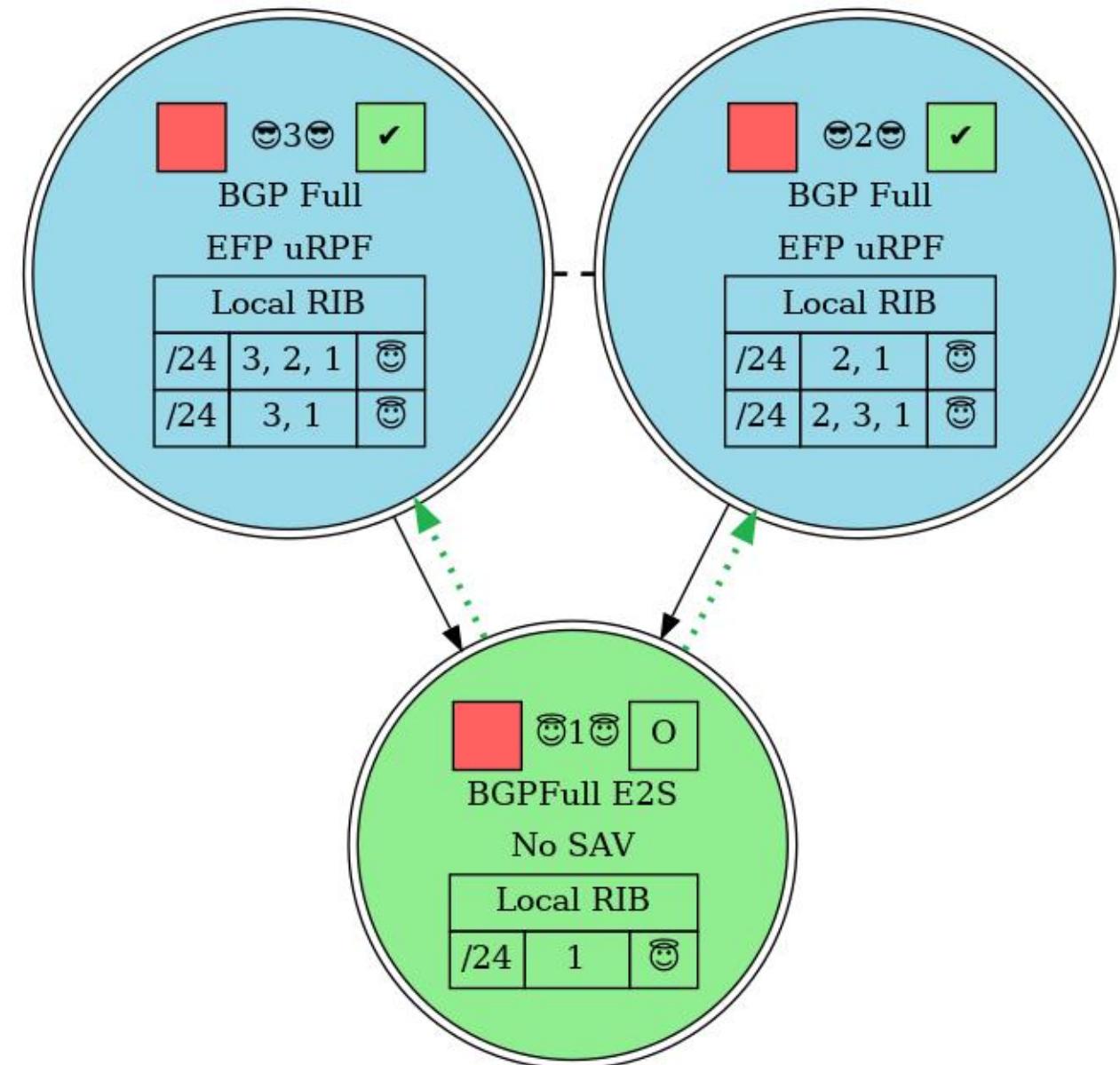
(config\_015 Ground Truth)

### (Data Plane Outcomes)

(Attacker Outcomes)

✓ FALSE NEGATIVE ✓	0	✓ TRUE NEGATIVE ✓	2
✗ TRUE POSITIVE ✗	0	✗ FALSE POSITIVE ✗	0
✗ FILTERED ON PATH ✗	0	✗ FILTERED ON PATH ✗	0
⊥ DISCONNECTED ⊥	0	⊥ DISCONNECTED ⊥	0

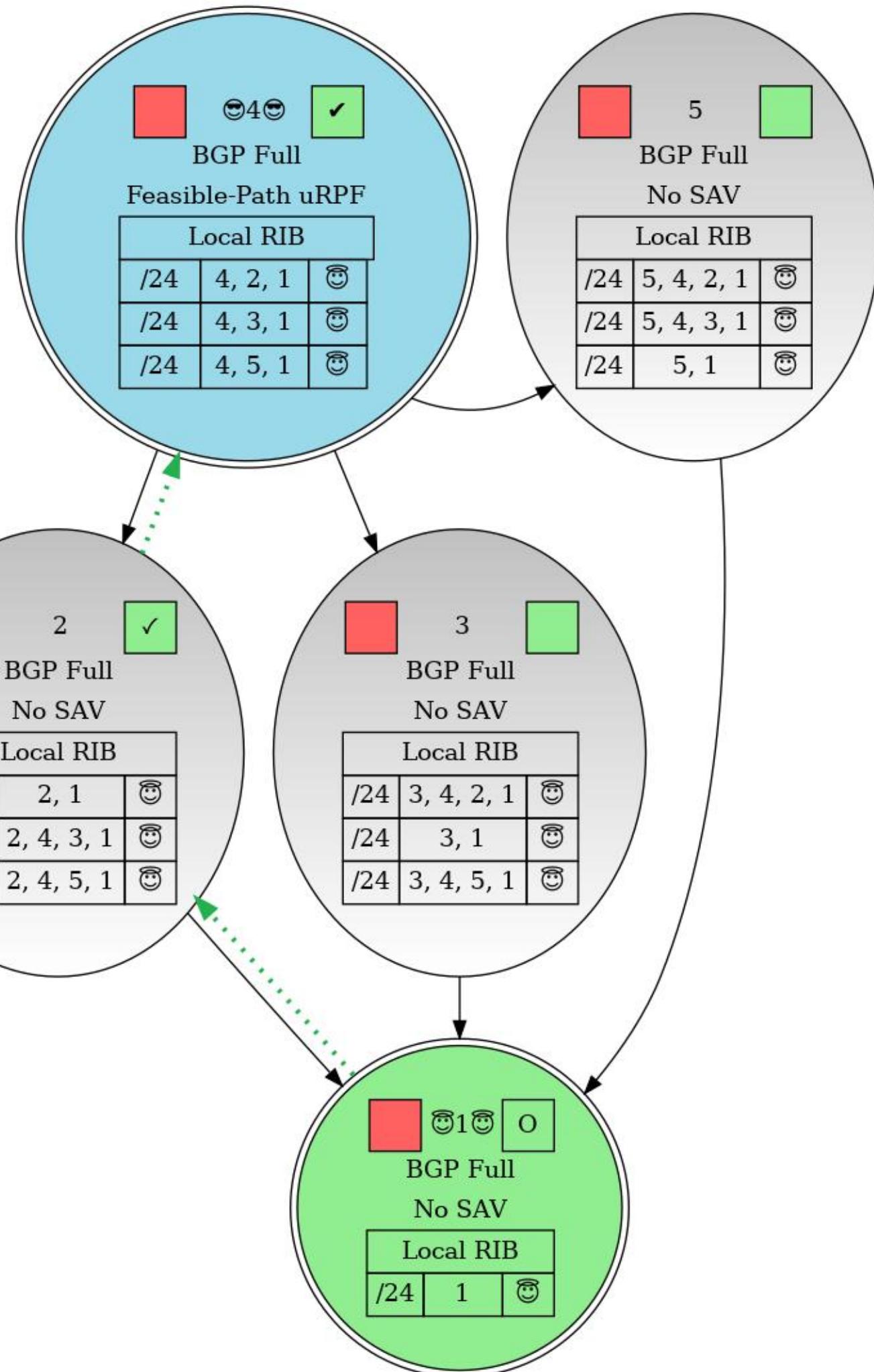
(Victim Outcomes)



(config\_015)

**(Data Plane Outcomes)**

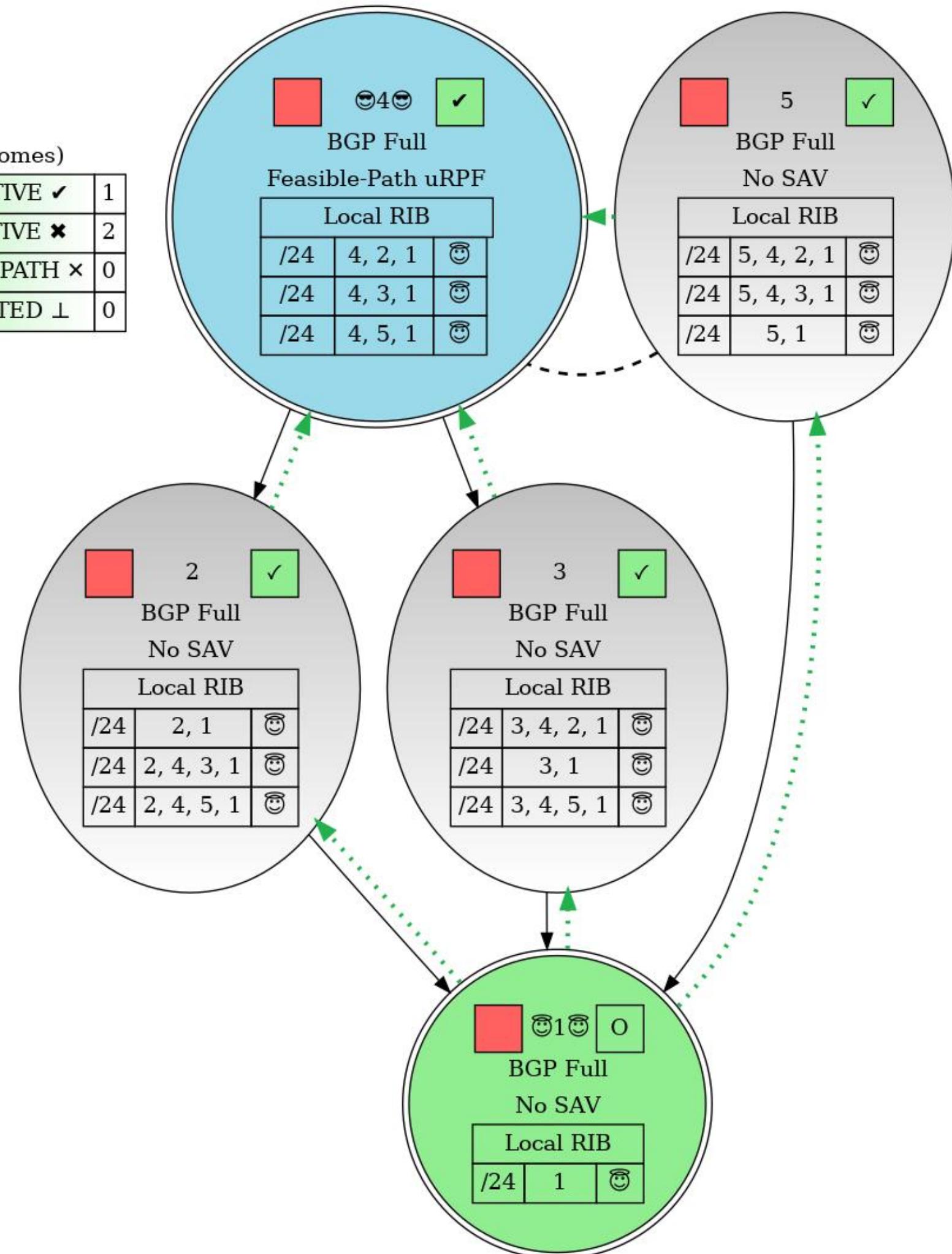
(Attacker Outcomes)		(Victim Outcomes)	
✓ FALSE NEGATIVE ✓	0	✓ TRUE NEGATIVE ✓	1
✗ TRUE POSITIVE ✗	0	✗ FALSE POSITIVE ✗	0
✗ FILTERED ON PATH ✗	0	✗ FILTERED ON PATH ✗	0
⊥ DISCONNECTED ⊥	0	⊥ DISCONNECTED ⊥	0



(config\_016 Ground Truth)

### (Data Plane Outcomes)

(Attacker Outcomes)		(Victim Outcomes)	
✓ FALSE NEGATIVE ✓	0	✓ TRUE NEGATIVE ✓	1
✗ TRUE POSITIVE ✗	0	✗ FALSE POSITIVE ✗	2
✗ FILTERED ON PATH ✗	0	✗ FILTERED ON PATH ✗	0
⊥ DISCONNECTED ⊥	0	⊥ DISCONNECTED ⊥	0

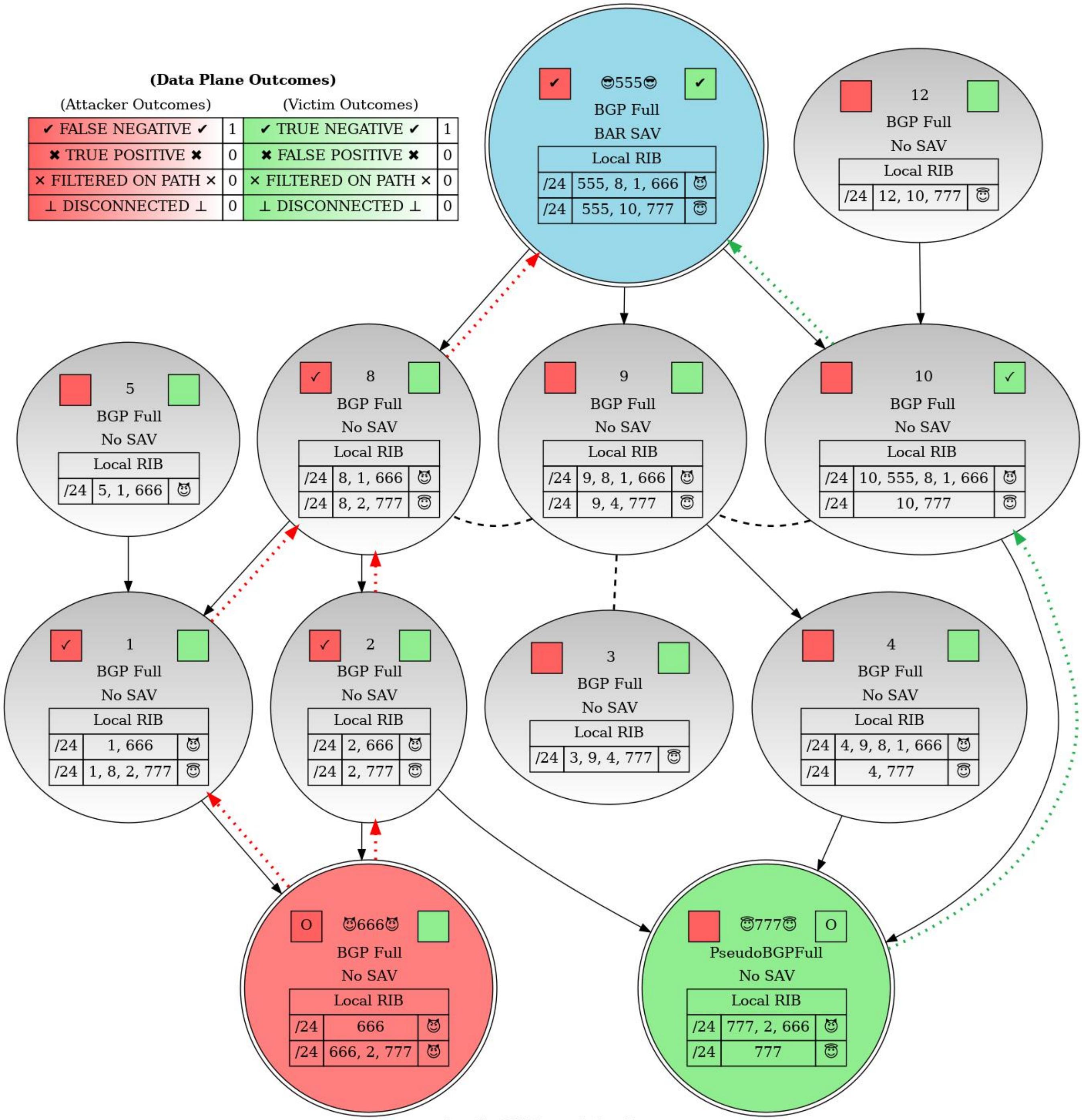


### (Data Plane Outcomes)

(Attacker Outcomes)

(Victim Outcomes)

✓ FALSE NEGATIVE ✓	1	✓ TRUE NEGATIVE ✓	1
✗ TRUE POSITIVE ✗	0	✗ FALSE POSITIVE ✗	0
✗ FILTERED ON PATH ✗	0	✗ FILTERED ON PATH ✗	0
⊥ DISCONNECTED ⊥	0	⊥ DISCONNECTED ⊥	0



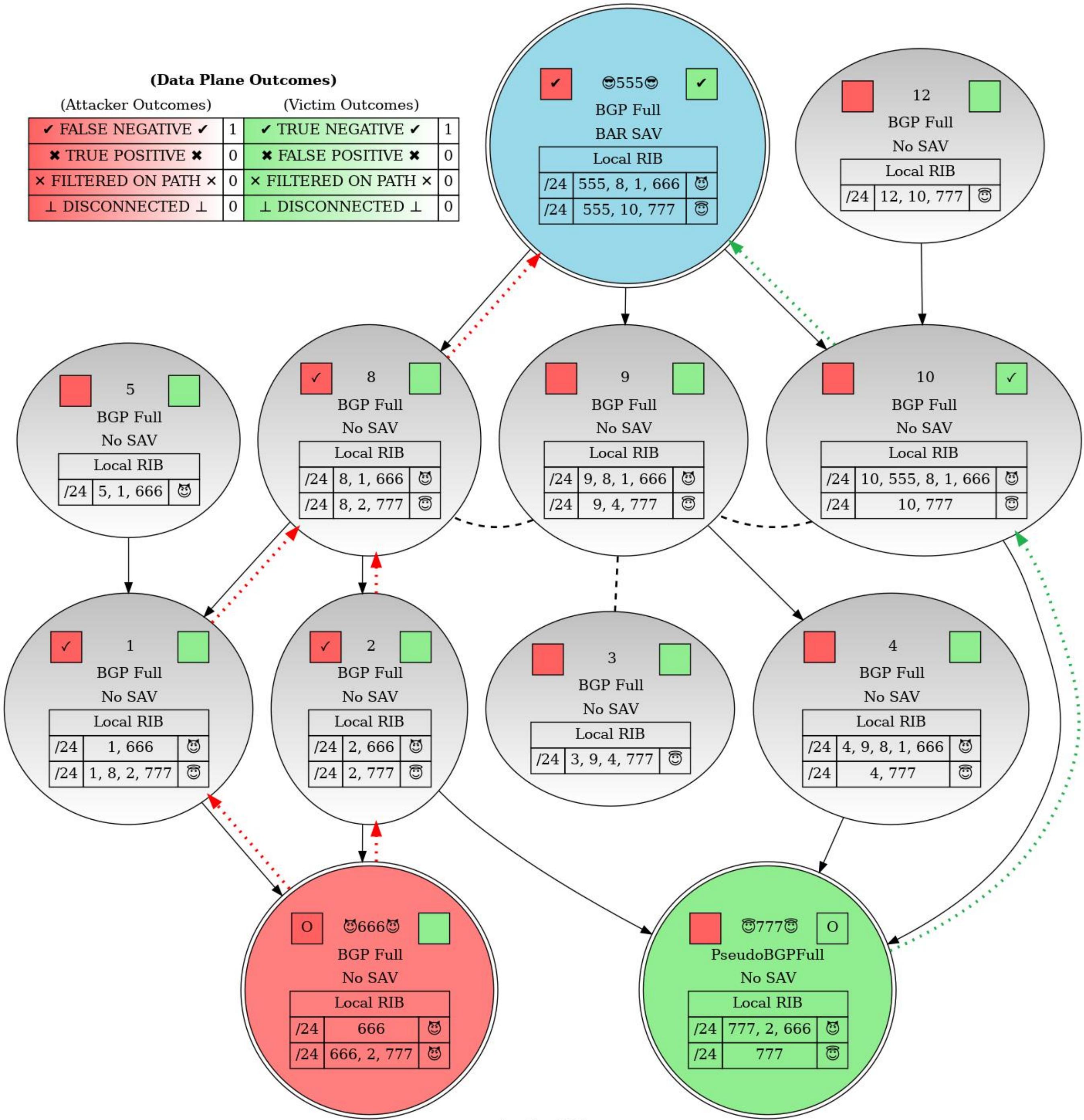
(config\_017 Ground Truth)

### (Data Plane Outcomes)

(Attacker Outcomes)

(Victim Outcomes)

✓ FALSE NEGATIVE ✓	1	✓ TRUE NEGATIVE ✓	1
✗ TRUE POSITIVE ✗	0	✗ FALSE POSITIVE ✗	0
✗ FILTERED ON PATH ✗	0	✗ FILTERED ON PATH ✗	0
⊥ DISCONNECTED ⊥	0	⊥ DISCONNECTED ⊥	0



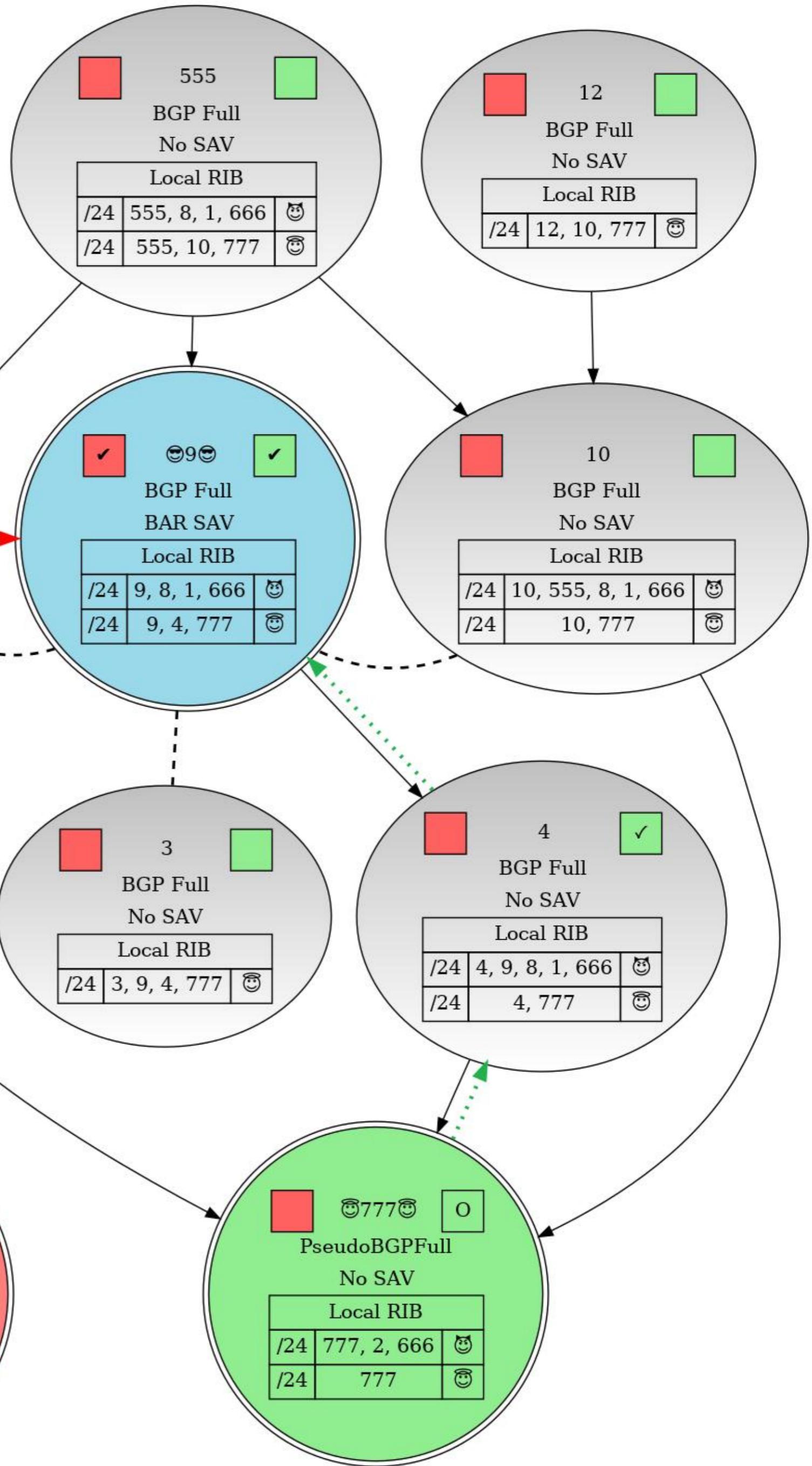
### (Data Plane Outcomes)

(Attacker Outcomes)

✓ FALSE NEGATIVE ✓	1
✗ TRUE POSITIVE ✗	0
✗ FILTERED ON PATH ✗	0
⊥ DISCONNECTED ⊥	0

(Victim Outcomes)

✓ TRUE NEGATIVE ✓	1
✗ FALSE POSITIVE ✗	0
✗ FILTERED ON PATH ✗	0
⊥ DISCONNECTED ⊥	0



(config\_018 Ground Truth)

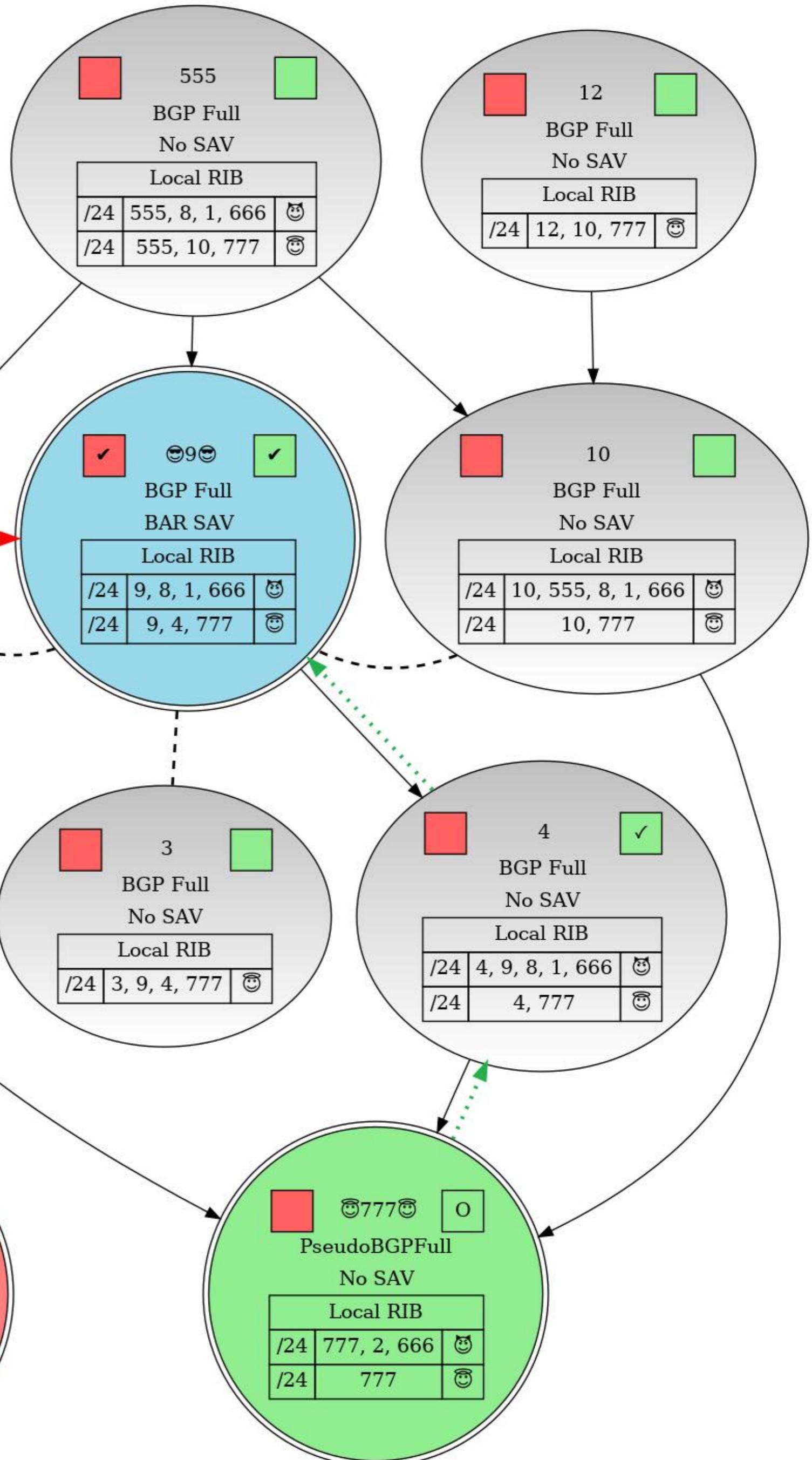
### (Data Plane Outcomes)

(Attacker Outcomes)

✓ FALSE NEGATIVE ✓	1
✗ TRUE POSITIVE ✗	0
✗ FILTERED ON PATH ✗	0
⊥ DISCONNECTED ⊥	0

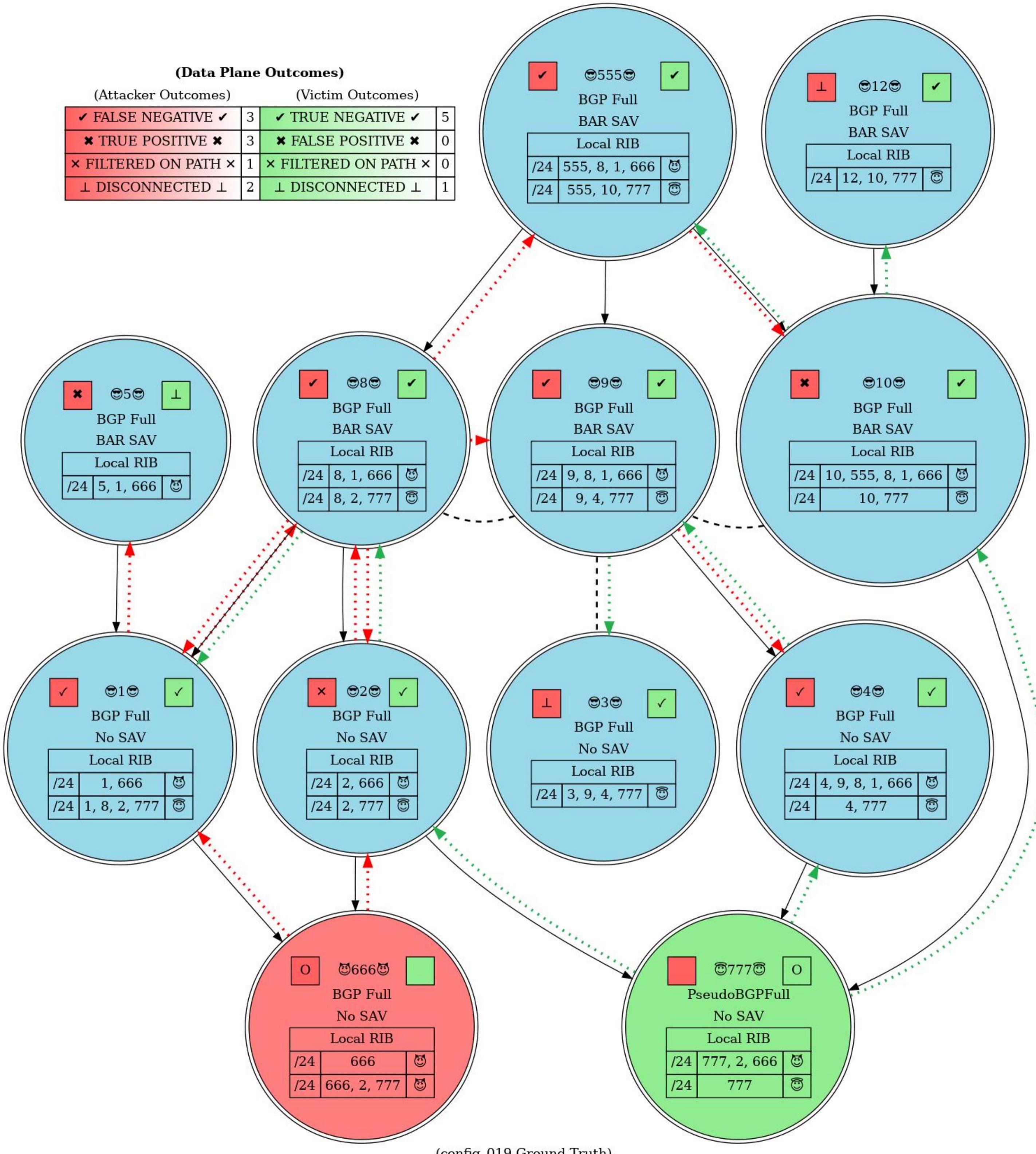
(Victim Outcomes)

✓ TRUE NEGATIVE ✓	1
✗ FALSE POSITIVE ✗	0
✗ FILTERED ON PATH ✗	0
⊥ DISCONNECTED ⊥	0



**(Data Plane Outcomes)**

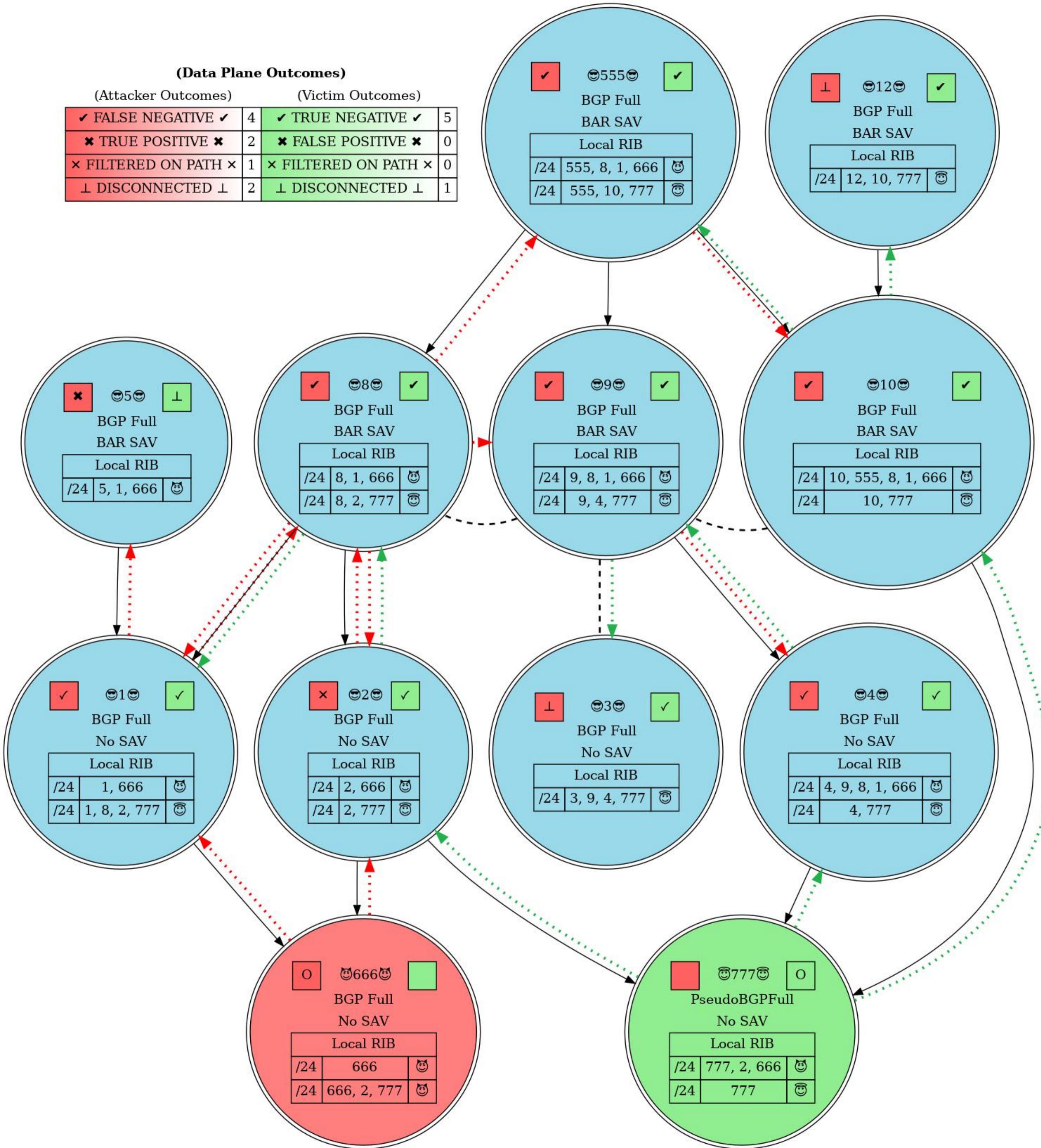
(Attacker Outcomes)		(Victim Outcomes)	
✓ FALSE NEGATIVE ✓	3	✓ TRUE NEGATIVE ✓	5
✗ TRUE POSITIVE ✗	3	✗ FALSE POSITIVE ✗	0
✗ FILTERED ON PATH ✗	1	✗ FILTERED ON PATH ✗	0
⊥ DISCONNECTED ⊥	2	⊥ DISCONNECTED ⊥	1



(config\_019 Ground Truth)

**(Data Plane Outcomes)**

(Attacker Outcomes)		(Victim Outcomes)	
✓ FALSE NEGATIVE ✓	4	✓ TRUE NEGATIVE ✓	5
✗ TRUE POSITIVE ✗	2	✗ FALSE POSITIVE ✗	0
✗ FILTERED ON PATH ✗	1	✗ FILTERED ON PATH ✗	0
⊥ DISCONNECTED ⊥	2	⊥ DISCONNECTED ⊥	1

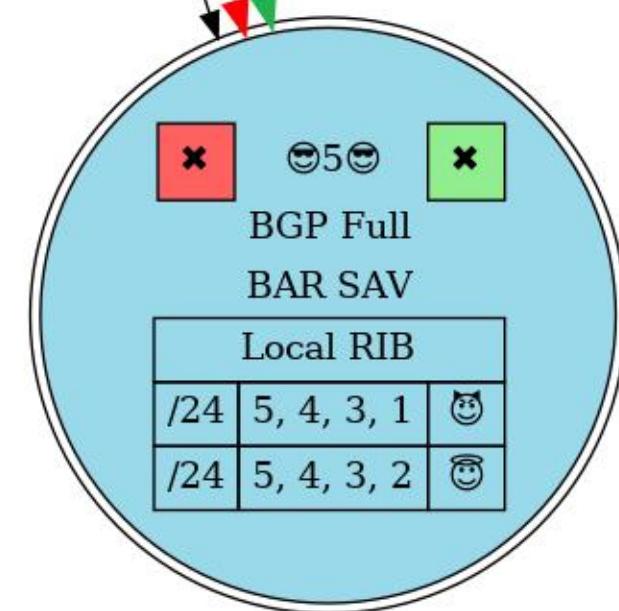
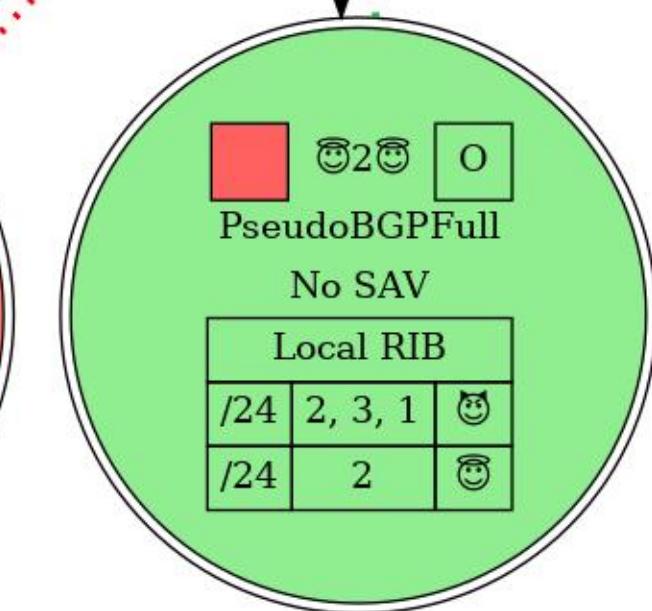
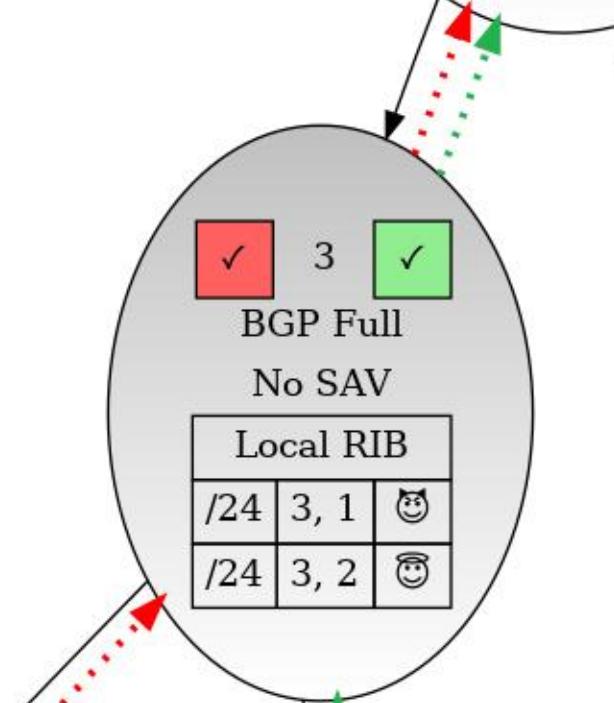
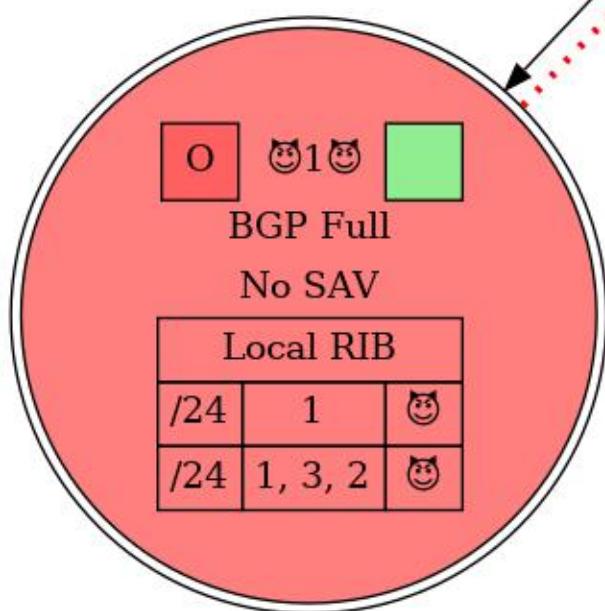
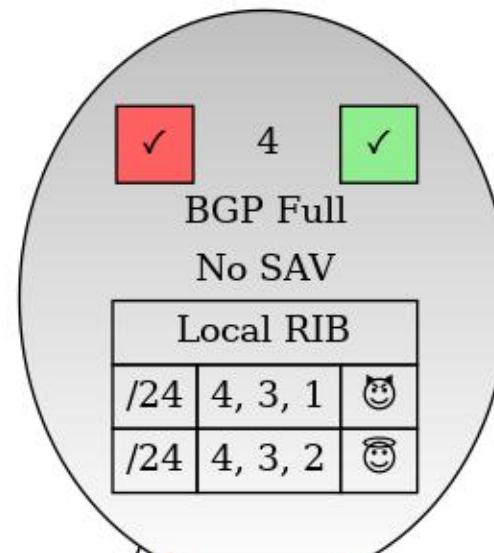


## (Data Plane Outcomes)

(Attacker Outcomes)

	0		0
✓ FALSE NEGATIVE ✓	0	✓ TRUE NEGATIVE ✓	0
✗ TRUE POSITIVE ✗	1	✗ FALSE POSITIVE ✗	1
✗ FILTERED ON PATH ✗	0	✗ FILTERED ON PATH ✗	0
⊥ DISCONNECTED ⊥	0	⊥ DISCONNECTED ⊥	0

(Victim Outcomes)



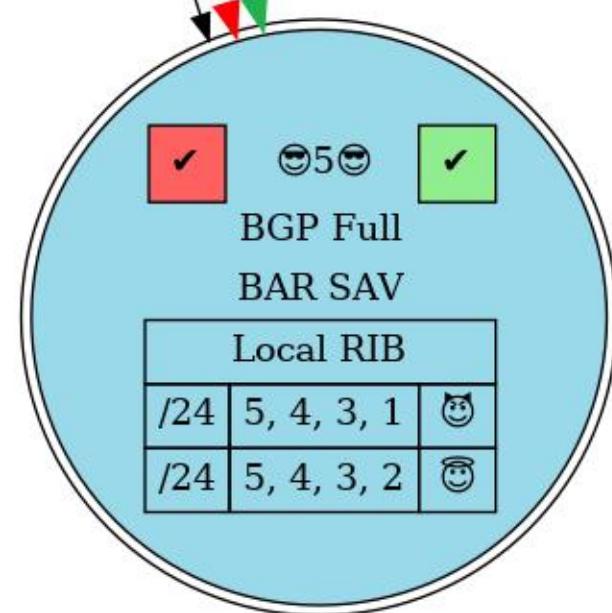
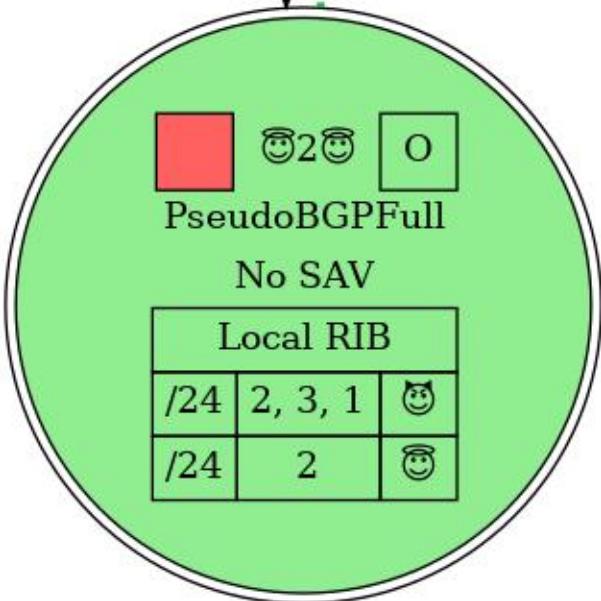
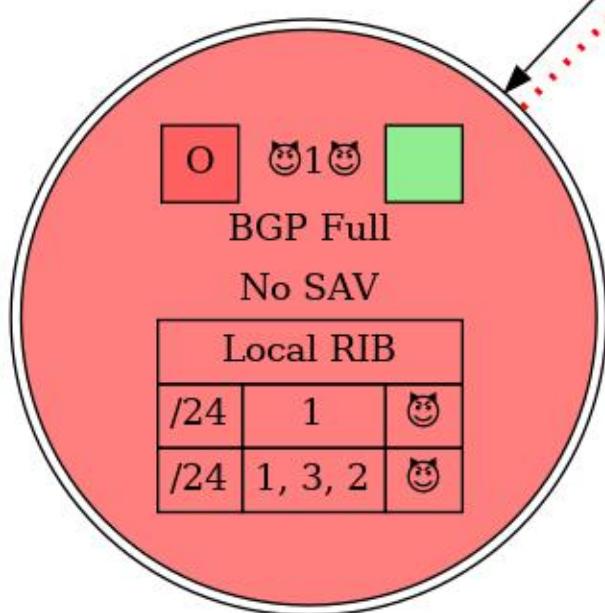
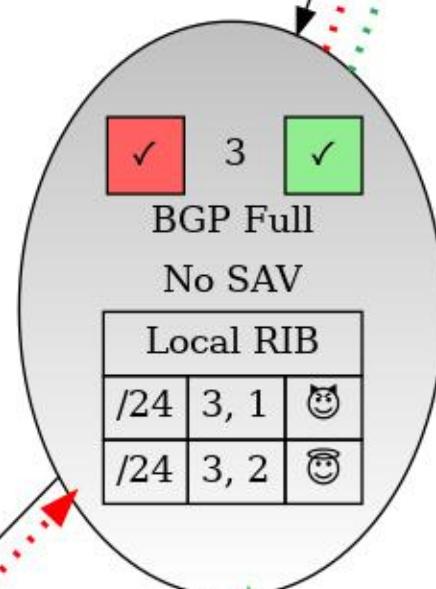
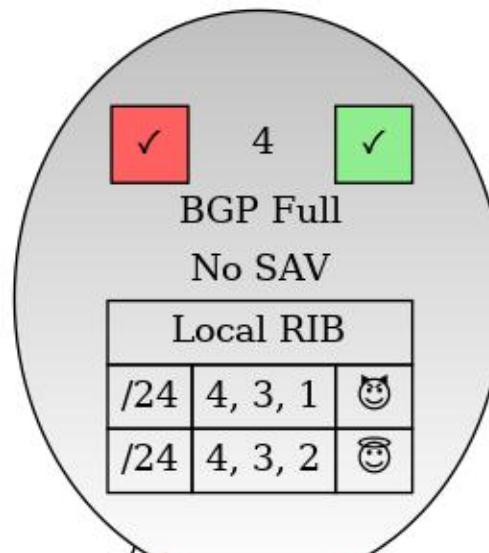
(config\_020 Ground Truth)

## (Data Plane Outcomes)

(Attacker Outcomes)

(Victim Outcomes)

✓ FALSE NEGATIVE ✓	1	✓ TRUE NEGATIVE ✓	1
✗ TRUE POSITIVE ✗	0	✗ FALSE POSITIVE ✗	0
✗ FILTERED ON PATH ✗	0	✗ FILTERED ON PATH ✗	0
⊥ DISCONNECTED ⊥	0	⊥ DISCONNECTED ⊥	0



(config\_020)